RECORDS CODE SHEET
5ND 4535 (Rev. 1/65)

NAVAL AVIATION SAFETY CENTER

GENERAL *(Card No. 1)*

Item	Code	Col.
Bureau Number	1 5 Ø 4 1 Ø	16-21
Reporting Custodian	1 4 1	22-24
Type Duty	J	25
Major Command	2	26
Aircraft Damage	A	27
Aircraft Injury	L	28
Time of Day	4	29
Carrier Hull Number	U	30
First Accident type	D 1	31-32
First Accident phase	3 3 5	33-35
Second Accident type	B 3	36-37
Second Accident phase	A 2	38-40
Type of Operation	2 3	41-42
Contributing Cause Factors	Z	43-47
Pilot Factor, First		48-49
Pilot Factor, Second		50-51
Pilot Factor, Third		52-53
First other Personnel Factor		54-55
Second other Personnel Factor		56-57
Primary Major Material Factor		58
Secondary Major Material Factor		59
Design		60
Facilities		61
Special Data & Cond.	H M	62-65
Special Data & Cond./Type of Incident		66
Primary Cause	Z	67
1st Posit. of Pri. Causal Factor		68
1st Possible Cause & Causal Factor	1 S P	69-71
2nd Possible Cause & Causal Factor	3 H	72-74
No Personnel Card ("R")		80

SUPPLEMENTARY *(Card No. 2)*

Item	Code	Col.
Weather		16-21
Kind of Flight	3 A 6	22-24
Relative Wind - Direction	X	25
Relative Wind - Velocity	6	26
Special Attention	—	27
Clearance	2	28
Maneuver prior to Occurrence	N	29
Number of other Aircraft		30
Primary Causal Factor		31-32
Altitude of Occurrence or Emergency		33-35
Environmental Factors	5	38-40
Non-Navy Injury ("R")		42
Number of "A" or "U" Injury (L)	Ø 2	43-44
Number of "B" Injury		46-47
Number of "C" Injury		48-49
Number of "D" Injury		50-51
Number of "E" Injury		52-53
Number of "F" Injury		54-55
Number of "G" Injury		56-57
Location	6 5 C V A 5 9	62-68

ACCIDENT DAMAGE A (9)

ACCIDENT INJURY L (10)

FISCAL YEAR 6 (75)

I. D. NO.	Don't Count	YR	MO	DAY	Enemy Action / TYP	Other Aircraft / SEQ
		5	N	26	1	Ø2

11	12	13	14	15
–	F	4	B	

Model

Model Code 1 3 (76 77)

PERSONNEL STATISTICS
(Card No. 3)

File Number → [redacted]

	Name (16-21 / 22-31)	Rank/Rate (32)	Br Service (35)	Age (37)	Yrs Experience (40)	Status (42)	Position (45)	Inj to Ind (47)	Abandon A/C (49)	Pilot Factor Involved (51)	Trainer Utilization (52-53)	Instr. Card (55)	Total Time All Models (56-57)	All Models 3 Months (58-59)	All Series This Model (62-63)	All Ser Mod 3 Months (65-66)	CV Landings (68)	Instrument Hours (69-70)	Nite Hours (71-72)	Total Time Jet or Helo (73-74)
03	MANFREDI J	3	1	I	A	A	1	L	1	2	+	3	3 2	1 Ø						
04	LEE J E	6	2	–	–	K	2	L	1	—	—	—	—	—	—	—	—	—	—	—

File Number → [redacted]

IBM: PERSONNEL CODED ON REVERSE SIDE

27 APR 1966 CLOSED

CODED DJ REVIEWED DJ LOGGED bgw PUNCHED R

CLOSED 1966

CODE SHEET REVIEWED BY CLASS DESK ANALYST .... (Initials) .... (Date)

555

01-20-66

MAINTENANCE AND MATERIAL CODE SHEET (Narrative brief on reverse)

SND 4621 (Rev. 10/64)

MAINTENANCE AND MATERIAL CARD NUMBER 33		CARD COL.
PRIMARY INVOLVED MATERIAL COMPONENT		16-21
SECONDARY INVOLVED MATERIAL COMPONENT		24-29
PROBABLE INVOLVED MATERIAL COMPONENT	H0999	32-37
SPECIAL DATA AND CONDITIONS		40-42
SPECIAL DATA AND CONDITIONS		44-46
SPECIAL DATA AND CONDITIONS		48-50
SPECIAL DATA AND CONDITIONS		52-54
SPECIAL DATA AND CONDITIONS		56-58
SPECIAL DATA AND CONDITIONS		61-63
FIRST MAINT FLT/SPEC COMPONENT		65-68
CARD NUMBER	33	79-80

MAINTENANCE AND MATERIAL CARD NUMBER 34		CARD COL.
PRIMARY INVOLVED MATERIAL COMPONENT:		
MFG P/N		16-31
TOTAL HOURS		34-37
OVERHAUL ACTIVITY		39
NUMBER OF OVERHAULS		41
HOURS SINCE OVERHAUL		43-46
AIRCRAFT TOUR	3	48
AIRCRAFT FLIGHT HOURS SINCE ACCEPTANCE	H	50
AIRCRAFT FLIGHT HOURS SINCE LAST INSPECTION	36	53-55
DAYS SINCE LAST AIRCRAFT INSPECTION	36	57-58
TYPE LAST AIRCRAFT INSPECTION	C	61
MONTHS SINCE PAR/OVERHAUL	6	67-68
CARD NUMBER	34	79-80

MAINTENANCE AND MATERIAL CARD NUMBER 35		CARD COL.
PROBABLE OR SECONDARY INVOLVED MATERIAL COMPONENT:		
MFG P/N		16-31
TOTAL HOURS		34-37
OVERHAUL ACTIVITY		39
NUMBER OF OVERHAULS		41
HOURS SINCE OVERHAUL		43-46
POWER PLANT MODEL NUMBER	J79GE8A	49-56
POWER PLANT SERIAL NUMBER	461717	58-64
DIR		68
CARD NUMBER	35	79-80

CAUSE FACTORS: 2

COMPONENT NO. 1:

COMPONENT NO. 2:

DESIGN:

POSSIBLE CAUSE FACTORS: 13

COMPONENT: H

DESIGN:

ACCIDENT DAMAGE: A

ACCIDENT INJURY: L (10)

Don't Count | Enemy Action | Other Aircraft

I.D. NO. (1 YR, 2-3 MO, 4-5 DAY, 6 TYP, 7-8 SEQ): 5 1 1 26 1 02

Model (11-15): -F413

SPECIAL ATTN: ("X")

Model Code (76-77): 13

01-24-66
COORDINATOR

M&M CODING RECORD

1-18-66
DATE CODED

CODED BY

LOGGED

DIVISION OFFICER

FOR IBM

PUNCHED | VERIFIED

PUNCHED | VERIFIED

02FEB 1966

FOR M&M FILING ONLY

MODEL | BUNO | DATE

REPORT NUMBER

CUSTODIAN

IDENT. NUMBER

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 — CARD NO. 79 80

COLL WATER. ON NITE 3 6

CV CAT LAUNCH ~~ACFT PITCHED UP TO AN EXTREME NOSE HIGH~~ (above, struck: FROM [illegible] ACFT OVER-ROTATED TO) ~~3 7~~ 37

~~ATTITUDE. WINGS BEGAN ROCKING INTO RIGHT TURN, LOSING~~ ~~3 8~~

~~ALTITUDE CRASHING INTO WATER 1/2 MILE AHEAD OF SHIP.~~ ~~3 9~~

~~NEITHER CREWMAN RECOVERED. POSS CAUSE HYD FAILURE~~ ~~4 0~~

~~WHICH ALLOWED FLAPS TO BLOW UP INCREASING STALL PROB-~~ ~~4 1~~

~~ABILITY AT LAUNCH SPEED.~~ ~~4 2~~

EXTREME NOSE HIGH ATTITUDE, WINGS BEGAN ROCKING & ~~4 3~~ 38

ACFT BEGAN FISHTAILING, SIMILAR TO DUTCH ROLL. ACFT ~~4 4~~ 39

MADE SLOW RT TURN WHILE DESCENDING & CRASHED 3/4 MILE ~~4 5~~ 44

STBD BOW OF SHIP. NEITHER CREWMAN RECOVERED. UNDET. ~~4 6~~ 41

POSS PLT DISORIENTATION DUE BEING STRUCK BY KNEE PAD/ ~~4 7~~ 42

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68

FLASHLIGHT. POSS MAINT/MAT FAIL UNDET COMPONENT. ~~4 8~~ 43

4 9

5 0

5 1

5 2

5 3

5 4

5 5

5 6

5 7

5 8

5 9

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 — 79 80

U. S. NAVAL AVIATION SAFETY CENTER
U. S. NAVAL AIR STATION
NORFOLK, VIRGINIA 23511

NASC/my
Ser 131/455
27 April 1966

SPECIAL HANDLING REQUIRED IAW OPNAVINST 3750.6 SERIES

From: Commander, U. S. Naval Aviation Safety Center
To: Commanding Officer, Fighter Squadron SEVENTY-FOUR

Subj: VF-74 AAR ser 2-65A concerning F-4B BuNo 150410 accident occurring 26 November 1965, pilot MANFREDI

1. The subject report and all endorsements thereon have been reviewed. The Naval Aviation Safety Center concurs with the comments and recommendations of the Aircraft Accident Board as modified by subsequent endorsers subject to the following remarks.

2. The recommendations of the AAB have sufficient application to carrier operations in general that they are being considered for use in future NAVAVNSAFECEN safety education material.

3. The NAVAVNSAFECEN concurs with the comments in paragraph 5 of the ninth endorsement concerning the need for a study on pilots' propensity for pilot error causal factors in aircraft mishaps. Such a requirement has long been recognized and resulted in the Human Error Research and Analysis Program (HERAP) proposed by NAVAVNSAFECEN in August 1964. A planning study has been completed which has defined intermediate goals in the furtherance of the program and outlined a long range program for the ultimate objective of the prevention of aviation accidents caused by human error. HERAP is being closely monitored by the Aero-Medical Department of the Naval Aviation Safety Center.

4. The cause of this accident has been recorded by the Center as UNDETERMINED with PILOT (disorientation as the result of being struck by knee pad or flashlight) and MATERIAL FAILURE/MALFUNCTION (undetermined component) as the most probable contributing factors.

Paul D. Buie

PAUL D. BUIE

Copy to:
BUWEPS (FSA) (2)
COMNAVAIRLANT
COMFAIRNORFOLK
COMCARDIV FOUR
COMCVW-8
CO USS FORRESTAL (CVA-59)
BUWEPSREP ST LOUIS

DEPARTMENTAL COMMENTS FOR "CLOSE OUT" LETTER ON ORIGINAL REVIEW

NOTE: 1. Negative report is required.
2. Positive comments will be in a format suitable for inclusion in the "close out" letter.
3. Attach additional sheets if more space is required.

M&M DEPT: Utility hydraulic failure which allowed flaps to come up would also cut out SLC. A combination of this type would almost certainly cause a stall situation at cat and speed. Therefore had a stall situation at cat and speed. Therefore had failure has been recorded as a possible cause

(b) (6) [redacted]

INITIAL/CODE

AERO-MED DEPT:

no comment +
Aero Med will need @ a later date.

INITIAL/CODE

NWSA
FSA-31:JRM
25 March 1966

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARAGRAPH 66, OPNAVINST P3750.6E

TENTH ENDORSEMENT on VF-74 serial 2-65A, concerning F-4B, BUNO 150410, accident occurring 26 November 1965, pilot MANFREDI

From: Chief, Bureau of Naval Weapons
To: Commander, U. S. Naval Aviation Safety Center

Subj: Aircraft Accident

Ref: (b) BUWEPS ltr serial NWSA RAAV-731/3:JP of 17 January 1966 (NOTAL)

1. Forwarded.

2. The Bureau does not concur in recommendation 1 by the Board. The installation of flap down locks is not considered feasible in view of the additional weight and complexity of such a system. In addition, the blow back feature is required in order to prevent structural damage to the aircraft in the event the maximum allowable flap down airspeed is exceeded.

3. The Bureau concurs in recommendation 2 by the Board. The program to improve the reliability of the AJB-3 gyro system is being pursued on an urgent basis. Reference (b) is a detailed summary of action completed and being taken.

4. The Bureau concurs in the comments of Commander Naval Air Force, U. S. Atlantic Fleet contained in paragraph 3 of the Ninth Endorsement. The installation of a battery powered light in the front cockpit is considered feasible. However, no further action on this matter is contemplated unless a requirement for such an installation is established.

(b) (6) [redacted]

By direction

Copy to:
COMNAVAIRLANT
COMCARDIV-4
CO, USS FORRESTAL (CVA-59)
CAW-8
CO, VF-74

CNAL 30S
Ser 1201
14 MAR 1966

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

NINTH ENDORSEMENT on VF-74 serial 2-65A, concerning F-4B, BuNo 150410, accident occurring 26 November 1965, pilot MANFREDI

From: Commander Naval Air Force, U. S. Atlantic Fleet
To: Commander, U. S. Naval Aviation Safety Center
Via: Chief, Bureau of Naval Weapons

Subj: Aircraft Accident Report

Ref: (a) OPNAVINST 3510.9C

1. Readdressed and forwarded, concurring with the conclusions and recommendations of the Aircraft Accident Board as modified by subsequent endorsements.

2. Chief, Bureau of Naval Weapons is requested to comment on recommendations 1 and 2 of the Board.

3. A battery powered light in the front cockpit has desirable features but the complications incident to installation, assured reliability and the limited conditions of usefulness may override the need for such an installation. BUWEPS is requested to comment.

4. Commander Naval Air Force, U. S. Atlantic Fleet concurs with the changes to NATOPS in recommendations 7 and 11. Accordingly, by copy of this endorsement, Commanding Officer, Fighter Squadron SEVENTY-FOUR is directed to submit such recommendations in accordance with reference (a).

5. The proper vehicle for attriting substandard pilots or those who have a propensity for pilot error accidents is the Naval Aviator's Evaluation Board. On the basis of pilot accident history by itself it would be extremely difficult to arbitrarily "draw the line" on pilots who have had several accidents in that all attendant mitigating circumstances would not be known. Instead it is recommended that Commander, U. S. Naval Aviation Safety Center study how the results of the Naval Aviator's Evaluation Boards could be correlated with previous evaluation boards, aircraft accidents, incidents and flight violations to determine if there is a feasible point at which to "draw the line."

(b) (6) [redacted]

By direction

Copy to:
(see next page)

CNAL 30S
Ser: 1201
14 MAR 1966

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAVINST 3750.6 SERIES

Subj: Aircraft Accident Report

Copy to:
COMNAVAVNSAFECEN (2 direct)
COMCARDIV-4
COMFAIRNORFOLK
CO, USS FORRESTAL (CVA-59)
CAW-8
CO, VF-74
BUWEPSREP ST LOUIS
Navy Liaison Officer
Directorate of Aerospace Safety
Norton AFB, California

ORIGINAL

FB4:34:dpk
3750
Ser: 38
7 Feb 1966

EIGHTH ENDORSEMENT on VF-74 AAR Ser 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Commander Carrier Division FOUR
To: Commander Naval Aviation Safety Center
Via: Commander Naval Air Force, U.S. Atlantic Fleet

Subj: VF-74 Aircraft Accident Report 2-65A; forwarding of

1. Forwarded, concurring with the conclusion and the recommendations of the board, and in complete agreement with the comments of the SEVENTH ENDORSEMENT, in particular paragraph 2.

2. Failure to perform post-start checks in their entirety violates the most basic safety regulation of aviation. An aircraft must be considered "down" and not ready for launching until this procedure is completed, with the primary responsibility for completion resting upon the pilot.

D. H. GUINN

Copy to:
NAVAVNSAFCEN (2)
COMFAIRNORFOLK
BUWEPSREP STL
DIRAEROSPACE, NORTON AFB
CO, USS FORRESTAL
COMNAVAIRLANT
CO, FITRON 74
CAW EIGHT

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA66, OPNAVINST 3750.6E

ORIGINAL

CVA59
Code 04/3750
Ser: 113
JAN 16 1966

SEVENTH ENDORSEMENT on VF-74 AAR Ser 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Commanding Officer, USS FORRESTAL (CVA-59)
To: Commander Naval Aviation Safety Center
Via: (1) Commander, Carrier Division FOUR
(2) Commander Naval Air Force, U, S. Atlantic Fleet

Subj: VF-74 Aircraft Accident Report 2-65A; forwarding of

1. It is difficult to assess where this accident started. On face value, it is a simple case of over-rotation off the catapult. Yet this pilot had family problems, had minimal rest and considered the mission "a waste of time". (encl (22)). He was 10-15 minutes late manning and ran into a frustrating situation on the flight deck. At this point, he began a series of errors of ommission contrary to the most elementary rules. He failed to sign the yellow sheet, made a "cursory inspection" of his aircraft, ommited certain preflight checks, and declined to remove his ejection seat pin at the proper time.

2. The flight deck bears responsibility for some of the rush situation LCDR MANFREDI encountered. However, the professional approach demands that a pilot not permit himself to be rushed insofar as matters of safety are involved.

3. In view of LCDR MANFREDI's temperment and background, which is noted in the basic AAR only in part, the most cogent point to emerge from this AAR is final recommendation in enclosure (22) which is quoted herewith.

"That a critical reevaluation be made of the current accident/incident review procedures in order to determine at which point to 'draw the line' on pilots who have had several accidents and/or incidents involving pilot error or flying technique."

4. Subject to the foregoing, the comments and recommendations of the board are concurred in. Recommendations 3, 4, 8, 9, and 10 have been reemphasized to all pilots. A continuing program to insure day and night currency in waist catapult operations has been initiated (recommendation 5).

H. S. MOORE

Copy to:
NAVAVNSAFCEN (2)
COMFAIRNORFOLK
BUWEPSREP STL
DIRAEROSPACE, NORTON AFB
COMCARDIV FOUR
COMNAVAIRLANT
CO, FITRON 74
CAW EIGHT

SPECIAL HANDLING REQUIRED IN ACCOR DANCE WITH PARA66, OPNAVINST 3750.6E

ORIGINAL

14 January 1966

SIXTH ENDORSEMENT on VF-74 AAR Ser 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Commander, Attack Carrier Air Wing EIGHT
To: Commander Naval Aviation Safety Center
Via: (1) Commanding Officer, USS FORRESTAL (CVA-59)
(2) Commander, Carrier Division FOUR
(3) Commander Naval Air Force, U. S. Atlantic Fleet

Subj: VF-74 Aircraft Accident Report 2-65A; forwarding of

1. Forwarded with the following additional comments:

a. Although the pilot was dissatisfied with the plans for the exercise his dissatisfaction was not so complete that he wished to divorce himself from the operation. He specifically requested to fly the mission on which he was launched. (Enclosure 22)

b. The fifth endorsement notes that the pilot "was easily disturbed by inattention to detail." It would also appear that this performance by others engendered exactly the same response by the pilot.

Owen H. Oberg
OWEN H. OBERG

Copy to:
NAVAVNSAFECEN (2)
COMFAIRNORFOLK
BUWEPSREP STL
BUWEPS
DIRAEROSPACE
NORTON AFB
CO, USS FORRESTAL
COMCARDIVFOUR
COMNAVAIRLANT
CO, FITRON 74

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST 3750.6E

ORIGINAL

11 January 1966

FIFTH ENDORSEMENT on VF-74 AAR Ser 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Commanding Officer, Fighter Squadron SEVENTY-FOUR
To: Commander Naval Aviation Safety Center
Via: (1) Commander, Attack Carrier Air Wing EIGHT
(2) Commanding Officer, USS FORRESTAL (CVA-59)
(3) Commander, Carrier Division FOUR
(4) Commander, Naval Air Force, U. S. Atlantic Fleet

1. Forwarded with the comments requested by the Third Endorsement.

2. The blackboard presentation contained all of the information obtained pertinent to the exercise. The ECM barrier tactics were understood by the participants, but specific tasks of individual CAP crews were not delineated. Condition CAP would be launched either as relief for the F4B on the ECM barrier or under possitive control for vector to a CAP Station or on a contact. There was no indication to the CAP crew, prior to launch, what their particular mission would be. LCDR MANFREDI had the most complete knowledge of any participant in the exercise.

3. Close observation of LCDR MANFREDI for the past six months had indicated that he was easily disturbed by inattention to detail. This factor was considered in my assessment of his mental attitude prior to flight. I did not consider him unfit to fly the mission.

H. B. BAUMANN

Copy to:
NAVAVNSAFECEN
COMFAIRNORFOLK
BUWEPSREPSTL
BUWEPS
DIRAEROSPACE
SAFETY NORTONAFB

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 of OPNAV INST 3750.6E

10 January 1966

FOURTH ENDORSEMENT on VF-74 AAR Ser 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Aircraft Accident Board
To: Commander, Naval Aviation Safety Center
Via: (1) Commanding Officer, Fighter Squadron SEVENTY-FOUR
(2) Commander, Attack Carrier Air Wing EIGHT
(3) Commanding Officer, USS FORRESTAL (CVA-59)
(4) Commander, Carrier Division FOUR
(5) Commander, Naval Air Force, U. S. Atlantic Fleet

1. Basic report forwarded Commanding Officer VF-74 with the following amplification and clarification as directed by the Third Endorsement.

a. Part VII Para 3 Page 6

The pilot was physically qualified and aeronautically adapted for flight at the time of the last annual examination (Manual of the Medical Department; Section V, Chapter 15, para 65) and was not in a grounded status at the time of the fatal flight. In view of the findings of this accident board, there is strong reason to doubt that the pilot was in the proper psychological status to be considered aeronautically adapted at the time of the fatal flight. It is believed that he was physically qualified at the time of the accident.

b. Part VII Para 2 Page 6

(1) The blackboard presentation was considered to be "adequate" only as far as a means of transmitting the pre exercise brief information to the flight crewmembers.

(2) The crews were dissatisfied with the concept and the tactical value of conducting the exercise as the CAP barrier was established on the opposite side of the force from the impending threat. Crewmembers manned their airplanes not knowing which one of three CAP stations and two missions they would be assigned. It was anticipated that these unknowns would be clarified during the conduct of the exercise, and the essential mechanics of each flight would "fall into place" as the mission developed. Though not having a complete understanding of the exercise and mechanics of the operation, the crews did not feel that this was a factor influencing their safe return from the mission since they were briefed that they could call the carrier for assistance whenever they felt it necessary.

(b) (6) [redacted]

Senior Member

Copy to:
NAVAVNSAFECEN
COMFAIRNORFOLK
BUWEPSREPSTL
BUWEPS
DIRAEROSPACE
SAFETY NORTONAFB

CVA59
Code 04/3750
Ser: 14

JAN 4 1966

THIRD ENDORSEMENT on VF-74 Serial 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Commanding Officer, USS FORRESTAL (CVA-59)
To: Aircraft Accident Board

Subj: VF-74 Aircraft Accident Report 2-65A

1. Returned to the board for amplification and/or clarification of the following points:

a. Part VII Para 3 Page 6. Board states pilot "was physically qualified and aeronautically adapted." The aeronautical adaptation of the pilot at the time of the flight is open to serious question based on the information in enclosure 22, even though this information was obtained after the fact, and could not have been known in toto before hand.

b. Part VII Para 2 Page 6. The board describes the briefing as "adequate." This appears to be contradicted by two considerations:

(1) The reference to the pilot's dissatisfaction with the plans for the exercise. (Enclosure 22 and elsewhere)

(2) The statement that "many crews manned their aircraft without a thorough understanding of the mission and their required actions."

2. By copy of this endorsement Commanding Officer Fighter Squadron SEVENTY-FOUR is requested also to comment on the adequacy of the briefings for the exercise in question. The comments of Commander Carrier Air Wing Eight are requested if deemed appropriate.

H. S. MOORE

Copy to:
VF-74
CAW-8
NAVAVNSAFECEN (2)
BUWEPS
COMFAIRNORFOLK
COMCARDIV FOUR
COMNAVAIRLANT
BUWEPSREP STL
DIRAEROSPACE
SAFETY NORTON AFB

ORIGINAL

CAW-8
00:OHO:reo
3750
Ser: 233
27 DEC 1965

SECOND ENDORSEMENT on VF-74 Serial 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

From: Commander, Attack Carrier Air Wing EIGHT
To: Commander, Naval Aviation Safety Center
Via: (1) Commanding Officer, USS FORRESTAL (CVA-59)
(2) Commander, Carrier Division FOUR
(3) Commander Naval Air Force, U.S. Atlantic Fleet

Subj: VF-74 Aircraft Accident Report 2-65A; forwarding of

1. Forwarded, concurring with the conclusions and recommendations of the board and the comments of the first endorsee subject to the following additional comments:

a. In accidents of this nature where the primary cause factor cannot be determined, the investigating board's conclusions and recommendations must encompass a wide band of possibilities. The recommendations presented by the board are numerous, but explicit. Commander, Attack Carrier Air Wing EIGHT will take prompt action to ensure that a continual program of briefings to cover the items mentioned in recommendations 3, 4, 9 and 10 is in existence in all squadrons.

b. The boards recommendations concerning the mechanical down lock for the flaps and the improved reliability of the AJB-3 system should be given particular consideration.

Owen H. OBERG

Copy to:
NAVAVNSAFECEN (2)
BUWEPS
COMFAIRNORFOLK
COMCARDIV FOUR
COMNAVAIRLANT
CO, USS FORRESTAL
BUWEPSREP STL
DIRAEROSPACE
SAFETY NORTON AFB
CO, FITRON 74

ORIGINAL

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAVINST 3750.6E

FIRST ENDORSEMENT on VF-74 Serial 2-65A, 26 November 1965, F4B, BUNO 150410 Pilot MANFREDI.

From: Commanding Officer, Fighter Squadron SEVENTY-FOUR
To: Commander, Naval Aviation Safety Center
Via: (1) Commander, Attack Carrier Air Wing EIGHT
(2) Commanding Officer, USS FORRESTAL (CVA-59)
(3) Commander, Carrier Division FOUR
(4) Commander, Naval Air Force, U.S. Atlantic Fleet

1. Forwarded, concurring with the conclusions and recommendations of the board.

2. The following comments upon specific recommendations are submitted herewith:

a. Recommendation 1: Positive down locks are a desirable feature, but must be weighed against an increase in complexity and weight.

b. Recommendation 3: A continuing program of reminders is conducted in this squadron. Prior to every at sea period and as part of the squadron briefing format the need is reiterated for methodical and careful pre-flight briefing, and inspection.

c. Recommendation 4: A study of stowage in the cockpit has been conducted in the squadron, and ideas are solicited from squadron members for improved stowage of pins, charts, and other paraphernalia.

d. Recommendation 5: Efforts to schedule launches from waist catapults should certainly be made, if feasible and compatible with operating conditions.

e. Recommendation 6: An alternate power source switch could be included on the instrument panel flood lights for launch and recovery.

f. Recommendation 7: Alignment of the pilot's and RIO's checklists would ensure a complete challenge and reply system.

g. Recommendation 8: Squadron Duty Officers must exercise their initiative to keep flight crews fully apprised of changes, using measures, talkers, or any means at their disposal.

h. Recommendation 11: Although the shore-based section of F-4B NATOPS does mention minimum requirements for condition CAP aircraft, there is a need for a greater coverage of carrier based procedures, if only as a guide to stimulate more professional performance.

H. B. BAUMANN

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAV INST 3750.6E

AIRCRAFT ACCIDENT REPORT
OPNAV FORM 3750-1A (Rev. 3-63) Page 1

SPECIAL HANDLING REQUIRED *in accordance with Para. 66, OPNAV INSTRUCTION 3750.6, effective edition*

OPNAV REPORT 3750-1

PART I GENERAL

SECTION A. IDENTIFICATION

1. AIRCRAFT ACCIDENT BOARD APPOINTED BY * Commander Air Wing EIGHT	2. SERIAL NO. * 2-65A	3. DTG (LOCAL) OF MISHAP * 261935A	4. MODEL AIRCRAFT * F4B	5. BUREAU NUMBER * 150410
6. TO: Commander, Naval Aviation Safety Center	*	9. LOCATION OF MISHAP LAT 41°14N Long 10°29.5E	*	10. DAMAGE * ALFA
7. VIA: Commanding Officer, VF-74 * Commander Air Wing Eight Commanding Officer, USS FORRESTAL Commander Carrier Division FOUR Commander Naval Air Force, ATLANTIC	8. RC*	11. TIME OF DAY * NIGHT	12. TIME IN FLIGHT * 0+01	13. FLIGHT CODE * 3A6
		14. CLEARED FROM: CVA-59	TO: CVA-59	
		15. TYPE CLEARANCE * LOCAL VFR	16. AIRSPEED UNKNOWN	17. A/C WEIGHT 46,000#
18. BRIEF DESCRIPTION OF MISHAP A/C flew into water shortly after catapult launch			* 19. ELEVATION AT TIME OF MISHAP S.L. 0 ft TERRAIN	

20. LIST MODEL, BUNO, REPORTING CUSTODIAN AND DAMAGE CLASSIFICATION OF ANY OTHER A/C INVOLVED (Complete OPNAV Form 3750-1 for each A/C) *

NA

SECTION B. CONTRIBUTING FACTORS *

✓	FACTOR	✓	FACTOR	✓	FACTOR
	1. PILOT ERROR IN TECHNIQUE/JUDGMENT		9. SERVICING PERSONNEL		17. WEATHER
	2. PILOT DEVIATION FROM NATOPS PROCEDURES		10. LANDING SIGNAL OFFICER		18. DESIGN AIRCRAFT
	3. PILOT INCORRECT OPERATION OF A/C SYSTEM		11. OTHER PERSONNEL (Specify)		19. DESIGN CREW EQUIPMENT
	4. PILOT OTHER (Specify)		12. ADMINISTRATIVE		20. DESIGN OTHER (Specify)
	5. CREW		13. FACILITIES-RUNWAY, OVERRUN TAXIWAY, FLIGHT DECK		21. ROLLING/PITCHING DECK ROUGH SEAS
	6. MAINTENANCE PERSONNEL		14. FACILITIES NAV AIDS, LANDING AIDS (GCA, CCA, ILS, MIRROR)		22. MATERIAL FAILURE/MALFUNCTION
	7. MAINTENANCE SUPERVISORY PERSONNEL		15. FACILITIES-CATAPULT, ARRESTING GEAR (Ship or field)	X	23. UNDETERMINED
	8. SUPERVISORY OTHER (Specify)		16. FACILITIES OTHER (Specify)		24. OTHER (Specify)

SECTION C. PERSONNEL DATA

1. NAME (Last, first, & middle initial) *	2. GRADE/RATE	3. FILE SERVICE NO.	4. DESIG. NATOR	5. BRANCH OF SERVICE	6. AGE	7. YEARS COM. SVC.	8. BILLET	9. POSITION	10. INJURY CODE
PILOT (at controls at time of mishap) MANFREDI, John P.	LCDR	(b) (6) [redacted]	1310	USN	37	12	PILOT	FWD COCKPIT	A
CO-PILOT (Identify & submit separate page 1) NA									

PILOT EXPERIENCE IN HOURS

ITEM			ITEM		
11. ALL MODELS		3202.1	17. CV LANDINGS DAY/NIGHT	ALL	438 / 140
				IN MODEL	207 / 71
12. ALL MODELS IN LAST 12 MONTHS		305.8	18. FCLP LANDINGS LAST 6 MONTHS DAY/NIGHT	ALL	2 / 21
				IN MODEL	2 / 21
13. ALL MODELS IN LAST 3 MONTHS		104.8	19. INSTRUMENT HOURS LAST 3 MONTHS ACTUAL/SIMULATED	ALL	15.7 / 0
				IN MODEL	15.7 / 0
14. ALL SERIES THIS MODEL	A/C	666.0	20. NIGHT HOURS LAST 3 MONTHS	ALL	24.9
	OFT/CPT	NA / NA		IN MODEL	24.9
15. ALL SERIES THIS MODEL LAST 12 MONTHS	A/C	300.5	21. TOTAL HOURS IN JETS (if jet mishap) HELOS (if helo mishap)		2649.9
	OFT/CPT	NA / NA			
16. ALL SERIES THIS MODEL LAST 3 MONTHS	A/C	104.8	22. LAST PRIOR FLIGHT ALL SERIES THIS MODEL	DATE	24 NOV 65
	OFT/CPT	NA / NA		DURATION	1.8
23. DATE/GRADE LAST NATOPS STANDARDIZATION CHECK		9 AUG 65 QUALIFIED	24. TYPE INSTRUMENT CARD		SPECIAL

OTHER PERS. *

25. NAME (Last, first, & middle initial)	26. DNA	27. GRADE/RATE	28. BRANCH OF SERVICE	29. FILE SERVICE NO.	30. UNIT	31. INJURY	32. BILLET	33. POSITION
LEE, John E.	NA	ENS	USNR	(b) (6) [redacted]	VF-74	A	RIO	REAR COCK

OP-OSF
SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAV INSTRUCTION 3750.6E

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SPECIAL HANDLING REQUIRED *in accordance with*
Para. 66, OPNAV INSTRUCTION 3750.6, effective edition

OPNAV REPORT 3750-1

PART II MAINTENANCE, MATERIAL, AND FACILITIES DATA

A. A/C HISTORY

1. DATE OF MANUFACTURE	2. FLIGHT HRS. SINCE ACCEPTANCE	3. NO. OF PAR/OVERHAUL	4. MONTHS SINCE LAST PAR/OVERHAUL	5. FLT. HRS SINCE LAST PAR/OVERHAUL	6. LAST/PAR OVERHAUL ACTIVITY	7. TYPE OF LAST CHECK PERFORMED	8. FLIGHT HOURS SINCE LAST CHECK	9. DAYS SINCE LAST CHECK
15 AUG 62	1026.1	2	6	141.2	O&R CHER PMAJOR	DDD CAIEN.	35.7	36

B. ENGINE HISTORY

	1. ENGINE MODEL	2. ENGINE SERIAL NUMBER	3. FLIGHT HRS. SINCE ACCEPTANCE	4. NUMBER OF OVERHAULS	5. WAS DIR REQUESTED?	6. FLT. HRS.	7. LAST OVERHAUL ACTIVITY	8. TYPE OF LAST CHECK PERFORMED	9. FLIGHT HOURS SINCE LAST CHECK	10. DAYS SINCE LAST CHECK
(1)	J79-9E-8A	401717	151.6	0	NA	NEW * 151.6	NAS QUONSET	ACCEPTANCE	35.7	36
(2)	J79-9E-8A	401101	221.4	0	NA	221.4	NAS QUONSET	ACCEPTANCE	35.7	36
(3)										

*ENGINES WERE NOT OVERHAULED BUT REPAIRED BY QUONSET POINT.

(4) MAJOR INSPECTIONS PERFORMED 6/7/65 AND 6/5/65. ACCEPTANCE INSPECTION COMPLETED 10/21/65 AND INSTALLATION IN AIRFRAME.

C. COMPONENT HISTORY

	1. COMPONENT INVOLVED NOMENCLATURE	2. MANUFACTURERS PART NUMBER	3. TOTAL HRS. ON PART	4. NO. OF OVHAULS	5. HOURS SINCE LAST OVERHAUL	6. OVERHAUL ACTIVITY	7. WAS DIR REQUESTED?	8. SER. NO. FUR/MFR/EUR
(1)								
(2)								
(3)								
(4)								

D. INCIDENTS & GROUND ACCIDENTS*

1. PARTS REPAIRED		2. DIRECT MANHOURS INVOLVED	2. PARTS REPLACED	
PART NUMBER	NOMENCLATURE		PART NUMBER	NOMENCLATURE

E. ENGINE FAILURES

JET ENGINE FLAMEOUT (Include intentional securing to prevent engine damage)

AT TIME OF FLAMEOUT	1. ALTITUDE	2. IAS	3. RPM	4. EGT	5. MANEUVER AT TIME OF FLAMEOUT	6. FUEL FLOW	7. ATTITUDE

8. G FORCES	9. RELIGHT ☐ ATTEMPTED ☐ ACCOMPLISHED	10. ALTITUDE	11. IAS	12. MAX EGT	13. FUEL CONTROL ☐ PRIMARY ☐ MANUAL	14. NO. RELIGHT ATTEMPTS

INTENTIONAL SECURE	15. ENGINE SYMPTOMS	16. CAUSE OF SYMPTOMS

RECIPROCATING ENGINE FAILURE

17. ALTITUDE	18. IAS	19. ATTITUDE	20. RPM	21. MAP	22. TORQUE/BMEP	23. FUEL FLOW PRESSURE	24. OIL PRESSURE

INTENTIONAL SECURE	25. ENGINE SYMPTOMS	26. CAUSE OF SYMPTOMS

F. OTHER REPORT

IDENTIFY OTHER REPORTS CONCERNING THIS MISHAP

1. AMPFUR SERIAL NUMBER
2. DIR MESSAGE REQUEST DATE-TIME-GROUP _____ *Info FASC on DIR reqmts. See para. 33 OPNAVINST 3750.6E*
3. OTHER
4.

OPNOTE: SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAV INSTRUCTION 3750.6E

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SPECIAL HANDLING REQUIRED *in accordance with Para. 66, OPNAV INSTRUCTION 3750.6, effective edition*

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G. SHIPS DATA

1. EQUIPMENT INVOLVED	2. PRESSURE SETTING	3. WIND OVER DECK	4. RELATIVE WIND	5. APPROACH/END SPEED
[X] CATAPULT [ ] ARRESTING GEAR	540 psi	34 kts	355°	128 kts

6. MARK NUMBER	7. MODEL NUMBER	8. LOCATION OF SHIP	9. LAUNCHING BRIDLE AND BRIDLE ARRESTER
C11	MOD 1	WAIST CATAPULTS	80020-608904-1 MARK 2 MOD-0

10. CATAPULT/ARRESTING GEAR BULLETINS OR NOMOGRAMS USED

6-55A

11. This portion shall be completed whenever (1) an aircraft accident involves arresting gear barrier and/or barricade equipment, or (2) an aircraft accident involves malfunctioning of arresting gear, barrier and/or barricade equipment. Incidents or routine damage to cables, weldings and other expendable equipment need not be reported herein.

ENGAGED	12. DECK RUNOUT (FEET)	13. RAM TRAVEL (INCHES)	14. CONTROL VALVE SETTINGS: CONSTANT PRESSURE DOME (P.S.I.)	CONSTANT PRESSURE RATIO	CONSTANT RUNOUT (WT. LBS.)	15. ACCUMULATOR PRESSURE (PSI)	16. COMMENTS (for cable failures specify no. landings and months in service)
DECK PENDANT							
DECK PENDANT							
BARRIER/ BARRICADE							

H. DEPLOYMENT

FOR ACCIDENTS ABOARD CARRIERS (complete on pilot)

1. DATE DEPLOYED CONUS	3. DAY HOURS/LANDINGS SINCE DEPLOYMENT	4. DAY HOURS/LANDING LAST 30 DAYS
24 AUG 65	80/39	26/12
2. NO. DAYS OPERATING PERIOD	**6. NIGHT HOURS/LANDINGS SINCE DEPLOYMENT**	**7. NIGHT HOURS/LANDINGS LAST 30 DAYS**
10	25/18	11/10
5. INST. HOURS LOGGED SINCE DEPLOYMENT ACTUAL/SIMULATED		
16/0		

I. WEATHER

WEATHER AT SCENE OF MISHAP

1. CEILING	2. VISIBILITY	3. RELATIVE WIND DIRECTION AND VELOCITY	4. TEMPERATURE RUNWAY / OUTSIDE AIR	5. DEW POINT	6. ALTIMETER SETTING
NONE	10	355°/ 34 kts	66 / 60	51	29.84

7. OTHER WEATHER CONDITIONS *(winds aloft, icing level, sea state, density altitude, as appropriate)*

NONE

PART III ADDITIONAL INFORMATION

PART	SECTION	ITEM	1. REMARKS
IV	7	4	ADDITIONAL BOARD MEMBER (b) (6) [redacted] 1stLT, USMC, Flight Line Officer VMF-451 (b) (6) [redacted]

2. COPY DISTRIBUTION
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COST DAMAGE TO:	3. GOVERNMENT PROPERTY	4. PRIVATE PROPERTY	5. DATE SUBMITTED TO CO
	NONE	NONE	16 DECEMBER 1965

PART IV SIGNATURES OF THE BOARD

1. SENIOR MEMBER	2. MEMBER	3. FLIGHT SURGEON MEMBER
(b) (6) [redacted] OPERATIONS OFFICER, VA-81	(b) (6) [redacted] ADMINISTRATIVE OFFICER, VF-74	CAW-8 FLIGHT SURGEON
(b) (6) [redacted] CDR, USN	(b) (6) [redacted] LCDR, USN	(b) (6) [redacted] LT (MC) USN
UNIT BILLET	UNIT BILLET	
	(b) (6) [redacted] SAFETY OFFICER, VF-74	
	(b) (6) [redacted] USAF	
	UNIT BILLET	

* When preparing Incident and Ground Accident reports, items indicated by an asterisk in the upper right hand corner must be filled in. Other items considered appropriate should also be filled in.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66, OPNAV INSTRUCTION 3750.6E

PART V THE ACCIDENT.

LCDR MANFREDI and his Radar Intercept Officer, ENS LEE, were launched in F4B Buno 150410 at 1935A, 26 November 1965, from the number four catapult of USS FORRESTAL (CVA-59) operating in the Western Mediterranean Area. Initial aircraft pitch attitude following the launch was slightly excessive, as in a moderate over-rotation. (Enclosures (1) thru (7)). The over-rotation condition was countered momentarily followed by a slow increase in pitch until an extreme nose high attitude was reached. As the aircraft passed the bow still climbing, it began a slow series of wing rocking motion about its longitudinal axis. As the intensity of the wing rock increased, the aircraft developed a fishtail, yawing oscillation about its vertical axis, the combination of which produced an action characteristic of a Dutch Roll. The aircraft entered a slow right turn while maintaining a nose high, wing rocking condition of flight from a position slightly ahead of the ship and at the apogee of its climbing arc of approximately 250 feet. The aircraft crossed the bow of the ship and the severity of the wing rock increased until a plan view of the aircraft's lights could be seen as the starboard wing reached the maximum angle of bank of its rocking motion. From the moment the aircraft entered the right turn it began losing altitude so as to inscribe a descending arc from 250 feet at a point ½ mile ahead of the ship to the point of water entry, 15 degrees starboard, 3/4 mile ahead of the ship (enclosures (8) thru (13)). The aircraft entered the water right wing first with 70 to 90 degrees of bank angle. At the moment of water entry the forward momentum of the aircraft had been arrested and the entry can be described as a slicing action with the aircraft pivoting about its starboard wing. There was no fire or explosion (enclosure (12)) associated with the aircraft impacting the water and it disappeared immediately. Both engines appeared to be producing full military thrust from launch until water entry and no afterburner operation was observed (enclosures (3) (5) (12) (14) (15)). There was no apparent attempt to eject made by either crewmember (enclosure (3) (9) (12)).

PART VI DAMAGE TO AIRCRAFT

The aircraft crashed into the sea and presumed destroyed on impact. The following pieces of wreckage were recovered by intensive search and salvage operation conducted by helicopter and surface vessels (enclosure (21).

1. Section of starboard outboard wing panel (enclosure (16)(20)).

2. Piece of trailing edge flap (enclosure (15)(17)(20)).

3. Piece of upper skin surface inboard starboard wing (enclosure (17)(18)(20)).

4. Forward section of starboard landing gear door (enclosure (18)(19)(20)).

5. Piece of styrofoam plastic of undetermined origin (enclosure (17)(20)).

PART VII INVESTIGATION AND ANALYSIS

1. The crew was performing an authorized flight, being launched from condition II Cap status (aircraft manned and positioned for immediate launch) while participating in an Electronic Countermeasure exercise involving units of Task Group 60.2. Conditions of the exercise imposed restriction on the use of Radio Communication and Electronic Navigational Devices except in case of emergency.

2. Prior to commencing the exercise, the pilot involved attended a briefing on the operation and was familiar with the requirements and procedures (enclosure (22)). Because of the extended period of time covered by the exercise and the unscheduled periodic requirement for crews to assume condition CAP status, there was no formal aircrew briefing presentation. The briefing was obtained by reading the procedural instructions written on the blackboard by LCDR MANFREDI prior to manning aircraft. It is felt by the board that this procedure, although not desirable, was adequate in view of the pilot scheduling problems associated with the exercise. The instructions contained all the pertinent information received by LCDR MANFREDI. It was determined, however, that many crews manned their aircraft without a thorough understanding of the mission and their required actions. The board feels that the lack of pilot understanding was due to the unfamiliarity of the exercise planners with the requirements in execution of the flight phase.

3. Both crewmembers were physically qualified and aeronautically adapted for the type of flight planned (enclosure (22)). The pilot was an experienced Naval Aviator having a total of 3202 hours, 2649 Jet Hours flying time of which 666.0 hours were flown in the F4B. He had a total of 578 carrier landings of which 140 were at night (enclosure (23). The RIO had a total of 321.0 flight hours, 229.4 being in the F4B aircraft.

4. The weather was three thousand scattered, visibility ten miles, true wind direction of 270 degrees at 17 knots. Weather is not considered a factor although the extreme darkness of the night with no visable horizon is considered by the board as a possible contributing factor.

5. The circumstances surrounding the pre-flight and subsequent manning of F4B BuNo 150410 were unusual and were considered of significant importance to investigate in detail. LCDR MANFREDI and ENS LEE were initially programmed to relieve the Condition II CAP crew of F4B BuNo 150437 on the number 4 catapult. F4B BuNo 150437 was one of two condition CAP airplanes, one of which would be launched to relieve an airborne flight at 1800A. Crew relief was to occur at 1730A but LCDR MANFREDI arrived at 1745A which would have been to late to swap aircrews if his airplane had been selected to be launched. The other F4B was launched and the flight crews swapped in BuNo 150437. F4B BuNo 150437 was then moved forward to be respotted on the number two catapult in order to clear the axial deck for aircraft recovery. The aircrew remained in the cockpits with LCDR MANFREDI riding brakes as the aircraft was towed forward. The tractor struck the number two Jet Blast Deflector (enclosure (24)) which was raised approximately one foot from the full down position. The force of the abrupt stop was severe enough to shatter the tow bar. The pilot surveyed the damage to tow bar and requested the nose gear strut be given a thorough inspection for possible damage before releasing it for flight. The crew then proceeded to flight deck control for assignment of a different aircraft. They were instructed to man aircraft BuNo 150410 which had just recovered and was to undergo a quick turn around (enclosure (25)). Aircraft BuNo 150410 was spotted on the number four elevator. A cursory pre-flight inspection was performed and the aircraft was manned by the pilot and RIO. The The pilot did not have an opportunity to review the yellow sheet of this airplane nor did he sign section A of the yellow sheet (enclosure (26)). The aircraft trouble shooter was unable to finish his post flight inspection of aircraft 150410, as he was called away to perform the nose gear strut inspection on F4B BuNo 150437 (enclosure (24)(27)). Aircraft 150410 had not been refueled and this operation was commenced shortly after being manned by the aircrew (enclosure (28)(29)). Problems were encountered connecting power cables and fuel hoses to the aircraft and after fifteen to twenty minutes delay, the aircraft began receiving fuel. There was a fuel pressure loss collapsing

the fuel hoses. Aircraft 150410 was then towed to the number four catapult (enclosure (28) where the refueling operation was completed. The possibility of partial fuel load and attendent shift in center of gravity of the aircraft was eliminated as a possible cause factor of the initial over-rotation and subsequent stall by the plane captain's statement and personal interview (enclosure (28)). The aircraft was started and the plane captain positioned himself for the after start checks. Before any checks could be made he was told to leave the catapult area because the F4B was to be launched immediately. The signal to spread the wings and lower flaps was given by the director on the number four catapult. Because of the expeditious launch conditions, squadron checkers were unable to give a complete pre-launch check to the aircraft and the starboard boundary layer control check was missed because of the pace of operations (enclosures (27) (28)(29)). An E1B turning on the number three catapult also contributed to the lack of thoroughness given the post start flight checks; this being a hazard squadron personnel do not usually contend with, since the F4's are always launched from the bow catapults during routine air operations.

6. The plane captain that assisted the pilot to strap into the front cockpit asked him if he wanted his seat pin pulled for him which is normal procedure just prior to the plane captains deplaning. LCDR MANFREDI said "No," he would remove it himself. The plane captain did not think this unusual for it was LCDR MANFREDI's custom to pull his own face curtain pin. The last time the pin was noted by any ground personnel was after the aircraft was positioned on the catapult and the canopy closed. The bag attached to the face curtain pin which contains the other seat actuator pins, was seen resting on the pilot's left shoulder being supported by the face curtain pin streamer. The RIO's face curtain pin had been pulled by the 2nd Mech that assisted him in strapping in (enclosure (29)).

7. Steam Pressure available to the catapult for launching was 560 psi. Using the applicable launching bulletin (655A) for the F4B Aircraft with a gross weight of 46,000 pounds, free air temperature of 63F, and wind over the deck of 34 knots from 355° relative, a steam pressure of 540 psi was selected by the catapult officer for the launch. This pressure produced an end speed of 128 knots, 162 knots airspeed, or sixteen knots above minimum launch speed of 146 knots required for an F4B configured with full flaps and full centerline fuel tank. The validity of the end speed obtained was checked by use of the catapult tape (enclosure (30)).

8. Although there is nothing to indicate personnel error or material malfunction concerning the catapult shot itself, the difference between a catapult launch from the waist cats (C11 Mod 1) and one from the bow (C1) is considered significant enough to warrant detailed analysis. The three major factors affecting rotation rate after a catapult launch are:

a. Restraining force of the launching bridle during the time it is attached to the aircraft

b. Aircraft center of gravity

c. Stabilator effectiveness

The effect of the first factor is to prevent rotation prior to the release point at the end of the catapult stroke. The effect of the second and third factors regulate rate of rotation once rotation is possible. The center of gravity in the F4B aircraft is normally well forward of the main landing gear. This factor combined with the lack of stabilator effectiveness prior to achievement of fairly high airspeed during take off requires a considerable amount of nose-up force from the stabilator control surface to effect rotation. The established procedure for handling pitch control is to hold full back stick prior to initiating the catapult shot. Back stick pressure is then relaxed, meeting rotation of the nose at the desired pitch angle with forward stick and holding the proper value while decreasing forward stick pressures caused by acceleration with longitudinal trim inputs. Trim is set prior to the catapult shot at a value which is necessary for steady state flight after nose rotation to the desired pitch angle and has no effect on the rate of rotation until back stick pressure is relaxed. A nose-up, out of trim condition would cause over-rotation by giving a false neutral stick force feel to the pilot and would require considerable forward stick pressure to overcome. This possibility was ruled out as a contributing cause factor by the statement of LT (b) (6) that he had retrimmed the aircraft to near neutral setting prior to shutting

down after the previous flight (enclosure (25)). It must be assumed that if the trim value was changed by the pilot prior to flight it was placed in the optium trim position for the aircraft configuaration, a value between 1¼ and 1½ units nose up. When using the bow catapults, rotation is not begun until clear of the bow. Rotation begins shortly after bridle release on the waist cats and continues during the ensuing deck run, thus requiring a different technique in relaxing back stick pressure to prevent over-rotation. According to the records available, the last time this pilot had experienced a waist catapult shot was at 0730, 27 Reburary 1965, nine moths prior to the accident.

9. Aircraft attitude described by all eye witnesses parallels the description of the pre-stall and stall characteristics of this aircraft as depicted in the NATOPS Manual. Therefore, it is concluded that the aircraft was in a stalled or near stalled condition from shortly after the catapult launch until water entry. All possible cause factors were considered by the board in an effort to determine the cause of the aircraft stall. Those factors considered most probable are listed below.

a. Pilot technique:

Because of the high experience level of the pilot and his currency in night operations, it was considered highly unlikely that the pilot allowed the aircraft to get into a progressing stalled flight condition without one or a combination of extenuating circumstances.

b. Pilot disability:

Varying degrees of pilot disability could explain the inability of the pilot to take proper corrective action and effect a safe recovery from a slightly over-rotated pitch attitude. Initial over-rotation occasionally on a catapult launch is not uncommon in the F4B aircraft even for the most experienced aviators. But over-rotation even to the point of rudder shaker accuation can be easily overcome with the proper amount of forward stick without entering uncontrolled flight. In 1962 another VF-74 F4B incident, described by one witness as appearing very simular to this one, was caused by the front cockpit radar scope coming loose during the catapult shot and hitting the pilot in the chest. Since then a Safety Bar has been installed in the F4B aircraft which prevents the radar scope from moving aft during a catapult launch should the mounting bolts be loose or missing. The possibility of a knee board or flash light being placed on top of the instrument panel glare shield and being forgotten because of the confusing flight deck activities is a distinct possibility. Objects such as these could strike the pilot during the catapult shot with sufficient force to daze him, leading to spacial disorientation on a black, no horizon night. The fact that afterburner was apparently not selected in an effort to effect recovery from the near stalled condition, and no apparent ejection attempt was made by either occupent, lends credence to this theory.

c. Erroneous flight instrument display:

Although all aircraft of this command have had the miniture radar attitude gyro repeater added to the instrument panel, the primary instrument relied on for pitch attitude during and immediately after the catapult shot is the AJB-3 attitude gyro. This has been an item of concern in the F4 aircraft for some time and the number of pilot discrepancy write ups on this instrument remains high. During September 1965 Aircraft BuNo 150410 had three pilot discrepancies logged against the AJB-3. On 21 September 1965, the aircraft was put into major check. The check was completed 27 October 1965. No pilot discrepancies were logged against the AJB-3 during October. During November 1965, three pilot discrepancies were logged against the AJB-3 in aircraft BuNo 150410. These three discrepancies amounted to approximately 23% of the total AJB-3 discrepancies logged by the squadron pilots from the first of November through the date of the accident. The majority of these write ups are complaints about gitter and not complete gyro failures. When gyro failure is experienced the pilot is confronted with making a choice as to which instrument is in error. There is great reluctance to change to another instrument which is extremely hard to interpret and may not provide a valid indication.

d. Control movement obstructions:

Although this possibility cannot be ruled out completely, the fact that no ejection was effected by either crewmember as the situation deteriorated reduces its feasibility.

e. Loss of Cockpit Illumination:

Because of repeated reference to the aircraft navigation lights in describing the aircraft and maneuvers throughout the flight, complete electrical failure is ruled out as a possible cause factor. It is possible, however, to lose complete or partial cockpit instrument illumination without losing external lights.

To better understand how this can happen, a brief description of the F4B electrical system follows. The F4B electrical power supply system consists of two engine driven a-c generators (one off each engine), two d-c transformer -rectifiers, an emergency a-c generator and a power distribution (bus) system. The right engine generator supplies power directly to the right main 115/200 volt a-c bus, the essential 115/200 volt a-c bus, and the right (essential) transformer-rectifier. The left engine generator supplies power directly to the left main 115/200 volt a-c bus and the left transformer-rectifier. Either generator is capable of supplying electrical power to the entire aircraft system through an auto-parallel controlled bus-tie relay. When the generators are in phase, and are operating at approximately the same frequency, the auto-parallel control closes the bus tie system, thereby connecting the left and right bus system. In the event one generator becomes out of phase or frequency with respect to the other, the auto-parallel will open the bus tie relay, and each generator will supply power to its own bus system. Should one generator fail, the system is designed so that the bus tie relay will close allowing the good generator to power the entire system. If the bus tie relay remains open however, electrical power is lost from the bus powered by the defective generator. Eye witness statements indicate that all external lights were on from the catapult launch to water entry. This eleminates loss of electrical equipment powered by the left generator since the fuselage lights are powered by the left main 28/14V a-c bus. In addition the wing and tail lights would remain on if the control switch were in the dim position which is the normal position for launch. The loss of lighting in the pilots cockpit under a right generator failure, bus tie open situation would include instrument panel lights, instrument panel red flood lights, (bright position) red console lights (bright position) and white flood lights which are not used except in electrical storm conditons. LCDR MANFREDI was known to be very emphatic about keeping the cockpit lighting at as low a level as possible so as not to interfere with visual perception outside the cockpit. Knowing this, one can assume he had the red console lights and instrument panel flood lights in the dim position. He would retain these lights as the only aircraft means of illuminating the cockpit if the right bus were lost. It is not known if LCDR MANFREDI normally had his flash light on and positioned so as to illuminate the instrument panel during catapult launches. It is not a squadron policy to use flash lights during night launches. With a loss of the right generator with bus tie open the telepanel STAB AUG light and STATIC CORR light would come on immediately as well as the RT GEN Out and BUS TIE OPEN lights on the generator control panel. The flap and gear control switches would become inoperative and their respective position indicators would show barber pole. The main intercom and UHF radio would be lost. The AJB-3 artificial horizon would show an off flag and tilt almost ninty degrees. Both longitudinal and lateral trim would be inoperative. In short the pilot would be placed in a very difficult position in simply keeping the aircraft in a stable climbing attitude to reach a safe altitude before taking any corrective actions. Additionally, there are two other factors which would affect aircraft stability and stall warning to the pilot. When power is lost to the flap control, the actuator valve moves to a neutral position removing hydraulic pressure from the down side of the actuator. In this condition air loads will return the flap to a low drag position. Also, the stall warning vibrator on the left rudder pedal is inoperative with loss of right main 28 volt d-c bus. It should be noted that the most unstable flight condition for the F4B aircraft is gear down flap up configuration.

f. Examination of the portion of the starboard main landing gear door (enclosure (18)(19)) recovered indicates that the gear was in a position other than up and locked when the aircraft struck the water. Since it is normal procedure to retract the gear immediately after the initial rotation on a catapult launch, a possible explanation as to why the gear was left in the down position is that the aircraft may have experienced a complete loss of utility hydraulic pressure due to loss of hydraulic fluid. Without utility hydraulic pressure, the flaps will be blown up to a trailing position by the external air pressures since no mechanical down locks are present in the system. The "Stall Speed" chart in the F4B NATOPS Manual indicates that the stall speed for a gross weight of 46,000 pounds with the gear and flaps retracted, and power set as required for level flight, is 150 knots. The NATOPS Manual states that mild wing rocking will occur 5-10 knots prior to stall which would be 155 to 160 knots for a clean aircraft. Also it is known that with the landing gear extended, lateral stability is reduced, and the tendency for the aircraft to roll is increased. The launching airspeed for the aircraft was 162 knots which is near the wing rock speed should the aircraft be in a flaps up configuration. The NATOPS Manual states that "the stall is usually characterized by a right yaw and right roll etc" and states in a note "If the aircraft is close to, or at the stall, use of aileron to raise a wing will aggravate the yawing motion., etc". If the aircraft experienced a utility hydraulic failure during the catapult launch or during the initial rotation, the aircraft essentially would have been in a flap up configuration and near stall airspeed. If the pilot was not completely aware of the situation and countered a wing down condition with opposite stick movement, the condition would be aggravated and the flight conditions described by witnesses would probably have occurred.

g. There are several failures of the flight control system that could produce erroneous control inputs and forces. The most probable of these are:

(1) stabilator trim failure
(2) run-away stabilator trim
(3) partial or complete bellows failure
(4) false inputs from the stability augmentation system

A failure of the stabilator trim system causing it to stay in a fixed position requires increasing pilot applied stick force as the aircraft is accelerated. If the trim is set at that specified for catapult launch, the forces required by the pilot are not excessive below airspeeds of 200 knots.

A run-away trim to either of the extreme positions does require considerable over powering effort but is not beyond normal pilot limitations. A partial or complete bellows failure causes the stick to be pulled full forward and the pilot must counter this with aft stick pressure, the amount varying with the degree of bellows failure and the trim setting at the time. The maximum required would be 30 pounds pressure with full nose down trim and complete bellows failure.

False inputs from the stability augmentation system are not uncommon but have been generally restricted to rudder vibration or displacement, which places the aircraft in a skid or roll, rather than pitch control irregularities. Additionally, the stability augmentation can be disengaged easily by either one of two means if a malfunction is suspected. Occasionally the stability augmentation system has disengaged in squadron aircraft during catapult launches and no serious control problems have been encountered.

In summation, any one of the flight control system malfunctions mentioned above are not considered to be probable primary causes of this accident. However, each one in itself could be significant when combined with other possible malfunctions.

h. Since the port wing was not checked prior to launch for proper functioning of the Boundary Layer Control (BLC) system (enclosure (24)), the possibility of a BLC malfunction should be considered. A BLC system failure

Will effect the handling characteristics and stall speeds of the aircraft. A partial system failure, causing either the leading edge BLC or the trailing edge BLC to be inoperative on one side, requires some lateral trim to overcome the rolling tendency and necessitates an increase of five to seven knots of minimum airspeeds to maintain control of the aircraft. A complete BLC failure of both the leading and trailing edge on one side will require full lateral trim and minimum airspeeds should be increased by 18 knots. Also mild buffet will be noticeable at all airspeeds.

Since the aircraft had an excess end speed of 16 knots on the catapult launch (enclosure (30)), it is unlikely that a partial BLC failure would have caused the aircraft to enter a stalled condition. Additionally, such a failure would produce a pronounced left wing down tendency before pilot reaction time would allow corrective action. This was not the case since the aircraft actually drifted off to the right after the catapult launch.

The stall characteristics of the F4 with a complete BLC failure on one side are unknown to the board. However, as with a partial BLC failure, it would seem that the tendency would be for the aircraft to drift off to the side on which the failure occured. Therefore, the possibility of a BLC failure on the side not checked prior to launch is considered highly remote as a cause factor in this mishap.

10. Investigation of the UHF transmission heard by the aircrew of F4B 152285, (Backwash 100) (enclosures (31) (32)), turning up on the flight deck at the time of the accident was investigated with the following findings.

a. The crew in BW 100, heard a transmission on channel 14 which they assume was made by aircraft BW 106. The pilot believes the transmission was "Level your wings, level your wings", while his RIO interpreted it to be "We're in trouble, we're in trouble". Additionally, the pilot believes the transmission was made by ENS LEE.

b. Backwash 100 and the E1B spotted on the number two catapult were the only two aircraft in the vicinity of the ship monitoring the normal land launch frequency, channel 14. In addition to channel 14, the E1B was also monitoring channel 15 which was being used to control four aircraft on a random carrier controlled approach (CCA) (enclosure (33)). There is a strong possibility that only the stronger of two simultaneous transmissions would be received. This explains why the crew of the E1B did not hear the transmission on channel 14.

c. Playback of the magnetic tape monitoring channel 14 did not confirm that the transmission was made. This is not conclusive evidence, however, because it is known that many times radio transmission are not recorded by the equipment used.

Assuming the transmission heard by the crew of backwash 100 was made by ENS LEE the following possibilities may have existed.

a. The intercom system was inoperative because of disconnected leads from the pilots headset and mask, or electrical failure of the intercom system.

b. Due to the rush in preparation for the launch, the pilot may not have selected the hot mike mode of the intercom system. Subsequently under conditions of anxiety the RIO may have depressed the UHF foot switch button instead of the intercom foot switch.

c. The RIO being aware of the situation was attempting to relate the fact to the ship.

No firm conclusions can be made concerning the UHF transmission, but if the transmission was made by ENS LEE, it does suggest that he was aware of the seriousness of the situation.

11. Considering the condition of flight of the aircraft, as described by witnesses, from catapult launch to water entry, the fact that neither crewmember ejected is as disturbing as the cause of the accident. Possible reasons for the crew failing to eject follow:

a. Neither crewmember recognized the seriousness of the situation and did not attempt ejection.

b. The pilot's face curtain safety pin was not pulled prior to launch, eliminating the primary means for ejection. The time required to recognize this and effect an ejection using the secondary handle was more than that available before water impact.

c. The pilot was incapacitated and the RIO did not recognize the necessity for immediate action.

d. The pilot was aware of the situation but delayed his own ejection waiting for his RIO to leave.

e. The RIO experienced "Buck Fever" and refused to eject or had faith that his pilot would get them out of the situation.

f. Loss of communications between the pilot and RIO, coupled with preoccupation of the pilot in trying to control the aircraft, prevented him from signaling the RIO to eject.

g. Failure of either or both of the ejection seats to function properly.

Any of the situations mentioned above, or combinations thereof, are feasible. No attempt can be made to select the most probable.

12. The NATOPS Manual was being complied with and no NATOPS requirement or procedure is considered to be a factor in this accident.

The NATOPS Manual gives detailed pre-flight procedures, including scramble take off, for shore based operations, and also covers carrier-based procedures for routine air operations. A minimum preflight and pre-launch aircraft checkout should be specified concerning condition CAP launches during "peace time" carrier based operations. A recommendation to incorporate this in the NATOPS Manual will be initiated by the squadron in accordance with OPNAVINST 3510.9 series.

PART VIII CONCLUSIONS

1. It is the conclusion of the board that the primary cause factor or factors of this accident are unknown and cannot be determined.

2. The most probable of the possible cause factors are as follows:

a. Pilot partial incapacitation.
b. Malfunction of the AJB-3 All Directional Indicator.
c. Complete loss of cockpit instrument illumination
d. Complete loss of essential flight instruments caused by the loss of the Right Hand Bus System.
e. Flaps blowing up to the trail position due to loss of electrical control power or utility hydraulic pressure.

3. Regardless of the actual primary cause or causes of this accident, it is concluded that the frustrations experienced by the pilot throughout the day prior to the flight, including the confusion on the flight deck prior to launch, must be considered as possibly contributing to his inability to cope with the extreme situation that may have developed. Additionally, the blackness of the night with no visual horizon may be considered as a contributing factor.

PART IX RECOMMENDATIONS

1. The possibility of incorporating mechanical down locks in the F4 flap system, effective with full down flaps, be investigated to prevent the flaps from blowing up when electrical power or utility hydraulic pressure is lost.

2. Efforts be continued in improving the reliability of the AJB-3 system.

3. Flight crews should be continually reminded that they should not allow themselves to be rushed during deck operations and launches to the point where safety is jeopardized. Concurrently, it is the responsibility of the deck handling personnel and their supervisors to keep the tempo of operations within the limits of safety. During special exercises, when launch schedules deviate from that of routine air operations, a pre-planned system for aircraft movement and launching is essential to eliminate confusion. It is equally important for the flight crews in the aircraft to be informed of such a pre-planned system as it is for the deck personnel directing the movements.

4. Pilots be continually reminded of the hazards of having loose objects in the cockpits.

5. If the waist catapults are to be utilized for Condition Cap launches at night, the aircrews should occasionally be launched from these catapults during daylight operations.

6. Investigate the feasibility of installing a battery powered light in the front cockpit to be used during night approaches and launches in the event of a complete electrical failure.

7. Include "seat pins" on the pilot's take-off check list.

8. All carrier based squadrons institute a procedure to have the aircraft yellow sheets available for pilot review when aircraft substitution occurs after the crew leaves the readyroom.

9. Flight crews constantly review the NATOPS procedures for ejection signals between crewmembers in the event of lost intercom.

10. Pilots review all emergency procedures and particularly those applicable to over-rotation and near-stall conditions after catapult launches.

11. NATOPS Manual be revised to promulgate minimum requirements for preflight and aircraft pre-launch checks for Condition Cap aircraft during "peace time" carrier operations.

VF-74 Serial 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

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...ING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAVINST 3750.

VF-74 Serial 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI

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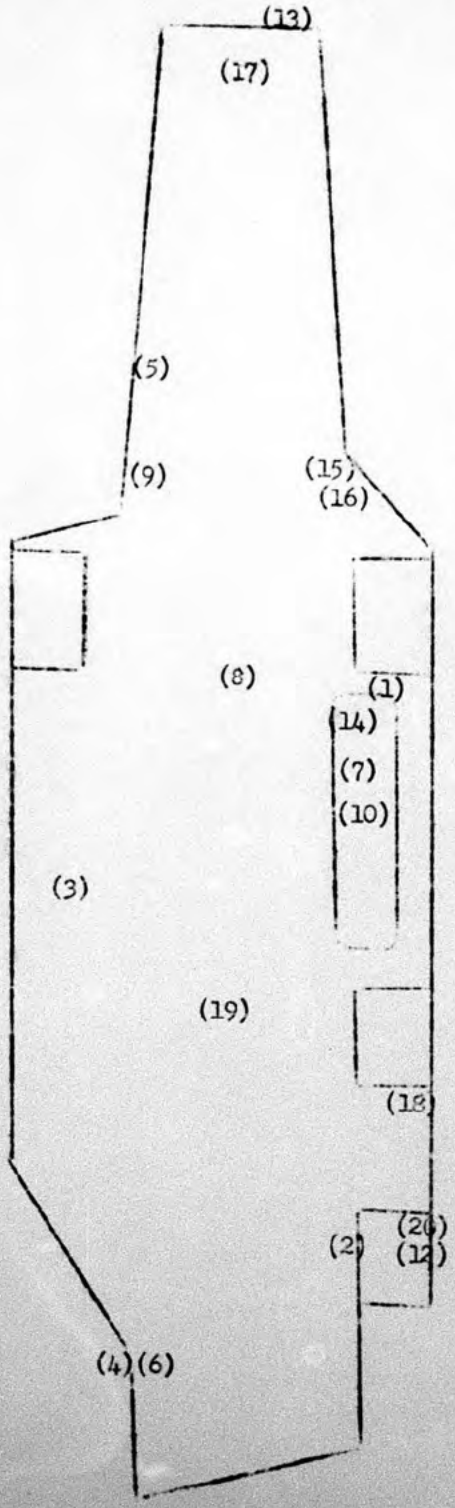
VF-74 Serial 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI
Diagram Showing Position of Witnesses



1-CDR. (b) (6) (ENCL 8)
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18-(b) (6) ATR-3 (ENCL 28)
19-(b) (6) AMH-3 (ENCL 27)
20-(b) ADJ-3 (ENCL 15)

(11) (Helicopter) ½ Mile abeam stbd quarter

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (1)

Statement of LT (b) (6) USN, On the platform waiting to recover aircraft, concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI

I was on the platform at 1930 on 26 NOV 65 waiting to recover aircraft. I heard 106 turn up on No. 4 Catapult and then I turned around to watch the Catapult shot. 106 proceeded down the catapult at what looked and sounded like a normal shot. I noticed a slight over rotation following the shot but 106 seemed to re-establish his attitude. I turned around to do something on the platform and heard 1st LT (b) call my attention to 106 going across the bow. 106 had gone in front of the island by the time I looked.

I saw no burner light after the catapult shot. Weather conditions were normal and I did not notice any other factors that may be of help to the board.

I was designated a Naval Aviator in March 1961 and have 1218 hours total flight time, of which 1031 hours are in jet type aircraft.

(b) (6)

Statement of LTJG [redacted] /1315, USN, Concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI.

At 1930 my RIO and I went into flight deck control to find out which aircraft we were to man. We were told there were no A/C unmanned and to wait and man one of the returning A/C.

There seemed to be some confusion on when the next F-4 was to be launched. I heard someone on the radio in flight deck control say, "What's about this damn F-4?" So I walked out on the flight deck, about center abeam the No. 1 elevator. The F-4 seemed to have a normal cat shot with a slight over rotation. The rotation seemed to increase slowly until the wings started rocking. The wings rocked slowly through the level position until about 150 or 200' of altitude. Then the A/C started a slow right turn wings rocking, nose above the horizon. The A/C hit the water nose high and in about 70° to 80° angle of bank to the right. The A/C hit about one half mile off the starboard side of the ship.

I didn't see any sign of ejection or hear any change in engine sound from the time of the cat shot to water impact.

I turned and went back into FDC immediately after the A/C hit the water.

I was designated a Naval Aviator 15 November 1963 and have 1030 hours total flight time, of which 483 hours are in jet type aircraft.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARAGRAPH 66 OPNAVINST 3750.6B

ENCLOSURE (3)

Statement of LTJG (b) (6) (b) (6) 1105, USNR, Officer of the Deck, concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI

On the 1930 launch I, as the Officer of the Deck aboard USS FORRESTAL, observed the following in regard to the crash of the F4B.

The aircraft was launched on the angle deck (waist cats), and as soon as it left the catapult it started to oscillate about 20 degrees to starboard then to port. It seemed unstable. Instead of turning the usual 30 degree cut to port it turned to starboard, and when it was dead ahead of the ship, the nose was high and the aircraft started to climb at an unusually steep angle. Then the starboard wing dipped and the aircraft lost altitude and followed its starboard wing into the water about 10 degrees off FORRESTAL's starboard bow at 1500 yards ahead of the ship.

The starboard wing hit the water first because I noticed the port running light was the last to disappear.

As we passed the area where the plane went into the water, I saw a water slick about 150-300 yards off the starboard beam. There was no sign of an aircraft or any debris at that time.

In conclusion I say that I knew the aircraft was in trouble immediately after it left the catapult. The above observation occurred in approximately 5 - 10 seconds.

At the time of the accident, I was standing watch as OODUW

(b) (6)

The board considers the above statement creditable.

(b) (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 64 OF OPNAV INST 3750.6E

ENCLOSURE (4)

STATEMENT OF (b) (6) ABH-3, (b) (6), USN, Petty Officer Abeam CONCERNING VF-74 AAR SERIAL NUMBER 2-65A, 26 NOVEMBER 1965, F4B, BUNO 150410, PILOT MANFREDI.

I, (b) (6) ABH-3, went back to number four cat, when the CAP was called away. After I got an up signal, I unfolded the wings and opened the flaps.

I took tension as the F-4, 106, turned up. The cat officer took over from there. When the plane left everything sounded normal to me. When the F-4 left the ship he had a fast pull up. Then the plane leveled off. I could see the port and starboard lights real well. The F-4 started rolling from side to side. It did this rolling three or four times. He then went into a starboard turn. At this time I could see all of his lights. He went across in front of the bow of the ship. I couldn't see anything after that due to the A3D setting on deck. I ran to the point I could see where the plane had went into the water.

(b) (6) ABH-3

The board considers the above statement creditable.

(b) (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (5)

Statement of 1st LT (b) (6) (b) (6) /7303, USMC, LSO Platform, concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI

At 1934, 26 November 1965, I observed 106 catapulted from catapult No. 4. My position was on the LSO Platform.

Following the catapult shot the aircraft appeared to me to rotate normally to possibly a slight over-rotation. It then started a positive climb to what appeared to be less than 100 feet above flight deck level, then drifted across the bow to the starboard rapidly and was descending. The aircraft disappeared from my view behind the island turning starboard and descending.

I was designated a Naval Aviator 4 September 1963 and have 931 hours total flight time, of which 895 hours are in jet type aircraft.

(b) (6)

SPECIAL HANDLING IN ACCORDANCE WITH PARGRAPH 66 OPNAVINST

Statement of [redacted] ABH-1, USN, Flight Deck Leading P.O., concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI.

A/C side no. 106, F4B was spotted on #4 Catipult as condition II CAP.

We had an E1B on #3 Catapult. In order to shoot #4 Catapult, #3 has to be fired first. Both A/C were turning up. The word was passed to launch the CAP. No. 3 Catapult went down. So we had to move the E1B in order to launch the F4B off #4 Catapult.

When the F4B was launched from #4 Cat. I was standing on the foul line at about the forward end of the Island. The Cat shot was nothing unusual. Out of habit, I watched the A/C go down the Cat. After the A/C cleared the angle, it appeared to me (my opinion) that the tail dropped a little more than they usually do. Then it looked to me like he was alright. (all I could see at that time was the tail of the A/C). I then turned my head to check another A/C that was being moved at that time.

I looked forward, and saw lights (green and white) pass in front of the ship at an angle towards the water. It looked to me like the A/C was in a hard starboard bank. I only had a quick look at it, as it was angling over towards the water. I then ran to the point, (just forward of #1 elevator) and I could see a spot in the water where something had hit.

By the time I got from where I was standing, (Foul line, about the forward edge of the Island structure) to the point, the spot in the water was about one (1) to two (2) hundred feet ahead of the ship off the starboard side. (My estimation). I could see the spot in the water clearly.

This statement is true and correct to the best of my knowledge.

[redacted]

The board considers the above statement creditable.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (7)

Statement of CDR [redacted] 1310, USN, On the Bridge, concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B, FUNO 150410, Pilot MANFREDI

At 1935, 26 November 1965, I looked up from the starboard side of the bridge and saw an F4B BUNO 150410 about 5° off the starboard bow, 5 to 10 seconds before it hit the water. I observed a green running light and believe I saw the red running light. I had the impression the aircraft was extremely nose high and then the nose fell through as if it were executing a "falling leaf" apparently right wing down when it hit the water. A short period thereafter I observed the water slick of the point of impact about 200 yards abeam the starboard side of the bridge. By timing my movements in conjunction with the ships speed I computed the point of impact a minimum of 750 yards ahead of the ship and an estimated maximum distance of 1600 yards.

I was designated a Naval Aviator in 1945 and have 4136 hours total flight time, of which 1306 hours are in jet type aircraft.

I have been Navigator aboard FORRESTAL since 8 December 1964.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (8)

Statement of LT (b) (6) (b) (6) 1310, USN, Supervising the taxiing of an E1B onto the No. 2 Catapult, concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI.

At or about the time of the accident I was supervising the taxiing of an E1B onto the No. 2 Catapult. I was straddling the catapult track standing close to the director to make sure he did not spread the wings on the E1B due to the imminent launch of the subject F4B on No. 4 catapult. I observed the F4B launch on No. 4 catapult quite closely and it seemed normal in all respects. After it had passed the port side, I directed my attention back to the oncoming E1B. An elapsed time of approximately ten seconds passed when I glanced forward and noticed the F4B again. At this time the aircraft appeared to be at about 300' in a completely stalled configuration. I could see the wing lights very well and they appeared to be gyrating up and down in a yawing type movement. The aircraft seemed to have completely lost its aerodynamics. After four or five "falling leaf" gyrations, (which took about five seconds) the airplane hit the water. During the descent, the aircraft passed from port to starboard and hit the water approximately two hundred yards ahead of the ship on the starboard side in a right side up flat attitude. The lights were on bright and steady throughout the evolution, and there appeared to me to be no evidence of inflight fire. I did not see either the pilot or RIO eject.

I was designated a Naval Aviator 25 October 1957 and have 2320 hours total flight time, of which 2023 hours are in jet type aircraft.

(b) (6) [redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARAGRAPH 66 OPNAVINST 3750.6B

ENCLOSURE (9)

I

Statement of LTJG [redacted] (b) (6) [redacted] 1315, USNR, Pri Fly Observer, concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B, BUNO 150410, pilot MANFREDI.

I was up in PriFly observing the 1930 launch and recovery. I watched 106 as it was launched from the waist cats. I was not aware of any over rotation at the end of the stroke and I continued to watch the aircraft proceed forward of the ship. As the aircraft crossed the bow to the right, it appeared to be in a nose high atitude and "fishtailing". The reason I noticed it, was the fact that the white taillight seemed to be discribing small arcs as though it were on a pendulem. It disappeared from my sight in front of the Island and the next thing I remember hearing was somebody saying, aircraft in the water starboard side. I went to the starboard side of PriFly and noticed a light area in the water pass by about 200 feet of the starboard side.

To the best of my knowledge these are the events as I saw them.

I was designated a Naval Aviator 28 August 1964 and have 1165 hours total flight time, of which all hours are in prop type aircraft.

(b) (6) [redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (10)

STATEMENT OF [redacted], AN, [redacted] USN, PLANE CAPTAIN CONCERNING VF-74 AAR SERIAL NUMBER 2-65A, 26 NOVEMBER 1965, F4B, BUNO 150410, PILOT MANFREDI.

On the night of November 26, 1965, I was sitting in the cockpit of my aircraft (A4E #310 VA-83) when the F4B #106 left number 4 catapult at approximately 2000. This may be incorrect launch time. The F4 had a good cat shot and climbed to around 250 to 300 feet above the water, and quickly drifted to the stbd side of the ship.

At about 500 yards off the bow, where I was watching, the tail of the aircraft dropped and swayed to the right, it then immediately swayed back to the left and took a position of a regular right bank turn; it then dropped sideways into the water at about 45° left wing up.

I climbed out of the cockpit of my aircraft and by the time it took me to close the canopy and walk down the ladder to the corner of the flight deck the spot where the phantom entered the water was even with me, about a hundred feet out to the starboard side of the ship. It was at this position I noticed the forward canopy of the F4 laying near the middle of the disturbed water.

The time limit of flight to the entry into the water was approximately 25 to 30 seconds. The Phantom entered the water starboard wing first, at a slightly nose down position. The said aircraft entered the water in an apparent right turn around 45°

My job is plane captain in VA-83. I entered the Navy 3 September 1964, transferred to AT "A" school 13 November 1964 at Memphis Tennessee and transferred again 16 April 1965 to VA-83 based at Oceana NAS Virginia Beach Virginia. I have been a plane captain for 4½ months and did study aviation fundamentals of flight, aircraft, and aircraft handling and related other subjects.

[redacted]

The board considers the above statement creditable except for the reference to sighting the forward canopy floating in the area of the crash. It was concluded that what was sighted was a reflection off the water or a piece of wreckage that gave the appearance of a canopy in the water.

[redacted]

Statement of [redacted], [redacted] AN, Forward Lookout Watch on 09 Level of Island, concerning VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI.

At 1935 on 26 November 1965 I was standing the forward lookout watch on the 09 level forward. An F4B had just been launched and I reported to CIC and Bridge that it appeared to be in trouble. Several seconds later the F4B crashed into the water approximately 15° off the Starboard Bow. The indications that led me to believe it was in trouble are as follows:

a. After being catapulted the F4B held its nose higher than normal and the wing lights indicated that the wings were rocking. First the left wing went down and then the right. After approximately 10 oscillations the A/C impacted in a slightly right wing down attitude. During this period the A/C drifted slowly to the right, disappearing about 15° off the Starboard Bow at about one mile. The F4B did not appear to gain altitude after the launch and then slowly lost altitude as it drifted right.

b. I observed the impact and saw no indication of ejection before or after impact. I saw no signs of fire, explosion or any other visible indications of trouble other than the aircraft's nose higher attitude, wings rocking and loss of altitude prior to impact. I could see the glow from the engines and it did not appear to be in afterburner.

c. After impact I observed a large foam area but did not see the A/C or any personnel. I visually tracked the foam area until it disappeared down the Starboard side at approximately 150 yards.

e. I have been a qualified lookout since June 1964. I came on watch at 1745 and had one coffee break prior to this incident. I was fully night adapted as it had been about an hour since I had been exposed to white light.

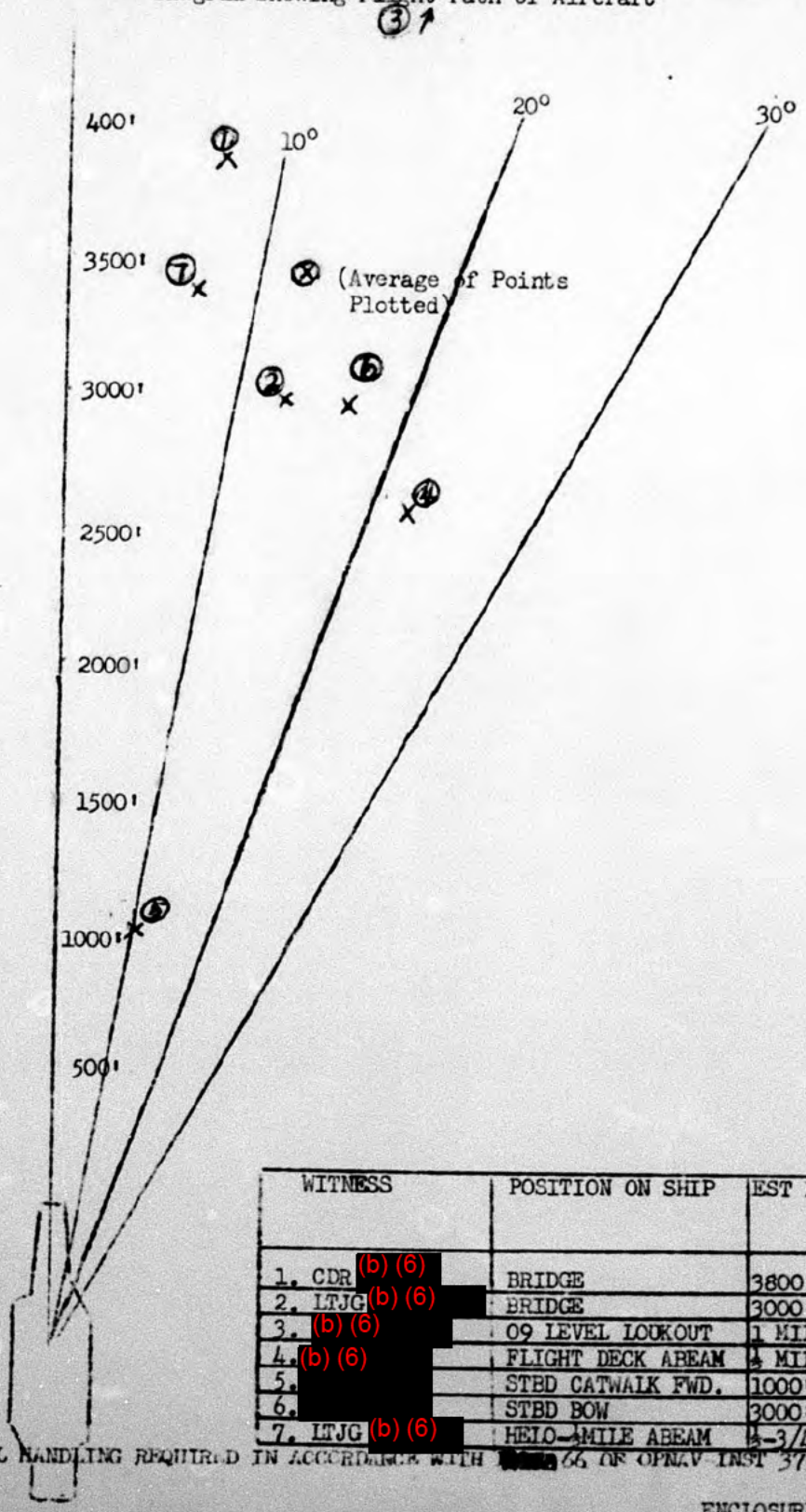
The statement which I have given is correct to the best of my knowledge.

[redacted]

The board considers the above statement creditable.

[redacted]

VF-74 Serial 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI
Diagram Showing Flight Path of Aircraft



WITNESS	POSITION ON SHIP	EST DIST.	ANGLE OF STB BOW
1. CDR (b) (6)	BRIDGE	3800'	8°
2. LTJG (b) (6)	BRIDGE	3000'	10°-15°
3. (b) (6)	09 LEVEL LOOKOUT	1 MILE	15°
4. (b) (6)	FLIGHT DECK AREAM	¼ MILE	20°-25°
5.	STBD CATWALK FWD.	1000'	10°
6.	STBD BOW	3000'	15°-20°
7. LTJG (b) (6)	HELO-¼MILE ABEAM	¼-3/4 MILE	5°-10°

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH [redacted] OF OPNAV INST 3750.6E

ENCLOSURE (13)

STATEMENT OF (b) (6), ABH-2, (b) (6) USN, Bow Petty Officer, CONCERNING VF-74 A/R SERIAL NUMBER 2-65A, 26 NOVEMBER 1965 F4B, BUNO, 150410, PILOT MANFREDI.

I (b) (6) ABH-2, (b) (6) USN, was standing to the starboard corner of #2 jet blast deflector (JBD) on the port-bow.

While standing there, I watched the launching of F4B #106 off of # 4 catapult. As the aircraft launched off the cat, all had looked normal, even after the A/C left the ship.

Then I noticed the tail drop and the A/C fly along the port side, and climb. After the climb to about 300 ft (estimated) I saw the port wing light, thinking it was a passing aircraft waiting for the recovery. I saw the starboard wing light, and again the port wing light. After seeing this, I trotted towards the bow, and I saw the white lights on the top of the A/C swerving left and then to the right. This had happened about three times. By this time the A/C was starting to the starboard side in front of the bow of the ship; thats when I saw all the lights, (port, starboard, wing lights and the two white lights on the top of the A/C) in an arch angle in front of the ship, in a downward direction toward the starboard side.

After that my view was obscured by the A4's parked in the one spot forward (stbd bow). I ran up to the bow with my mickey mouse ears on. I could still hear the engines turning at full. I thought the A/C had corrected its angle and flew off. When I reached the bow (one spot) I looked up and I didn't see any lights or hear any engines turning.

I looked out at the water and I could see a slick or smooth round spot to the stbd bow about 400 or 500 feet away. I pointed it out and said "there it is, over there". I don't know how long I stayed on the bow but I ran all the way to the island and ran behind it and I saw the spot going by the starboard beam of the ship.

I have four (4) years experience on the flight deck aboard the USS FORRESTAL (CVA-59) and everything I have written in the statement is what I have seen or heard, is to the best of my knowledge during the incident.

(b) (6)

The board considers the above statement creditable.

(b) (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

STATEMENT OF [redacted] ADJ3, [redacted] USN, Trouble Shooter for VF-74 Power Plants Shop, CONCERNING VF-74 AIR SERIAL NUMBER 2-65A, 26 NOVEMBER 1965, F4B, 150410, PILOT MANFREDI.

Post flight of 106 on elevator #4: Intakes, no foreign damage in either engine. Auxiliary air door, no sign of leaks, loose safety wire; all normal throttle linkage in good condition. I could not check A/B's on elevator. I came forward and down to maintenance, went up to 105, turned up, check out OK

Launched 105

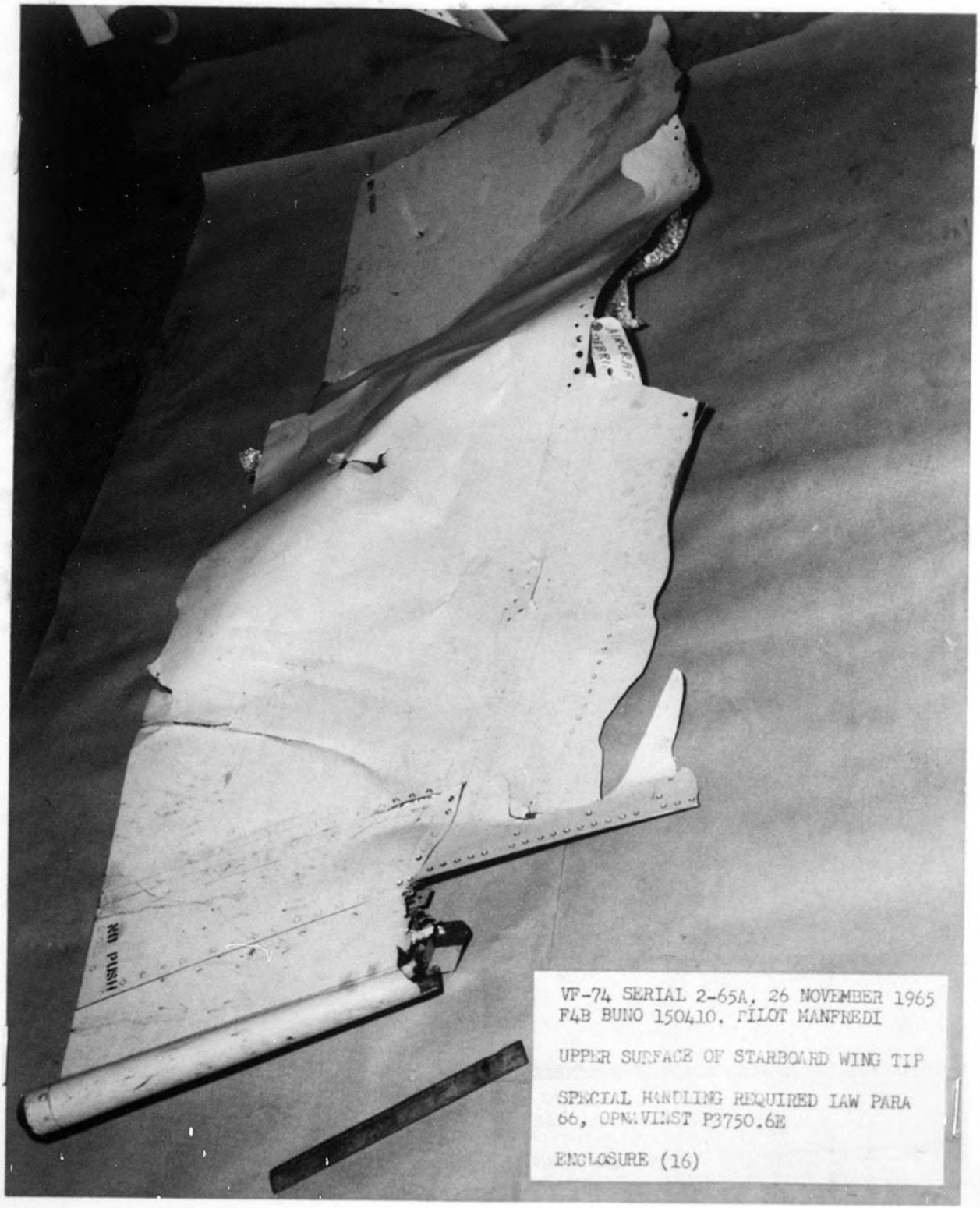
Walked aft to 106, it was in process of being turned and controls being checked. Small C/L tank leak. All transfer fuel pumps and elect and hyd were indicating good. They then moved prop (FUDD) off cat #3. I stood aft of burners in line with stabilater. Could see A/B nozzels close to normal position at green signal of cat officer. No sign of anything abnormal, 106 was launched.

Turned and went to check out 100 on elevator #4 in process of turn up.

[redacted]

The board considers the above statement creditable.

[redacted]



VF-74 SERIAL 2-65A, 26 NOVEMBER 1965
F4B BUNO 150410. PILOT MANFREDI

UPPER SURFACE OF STARBOARD WING TIP

SPECIAL HANDLING REQUIRED IAW PARA 66, OPNAVINST P3750.6E

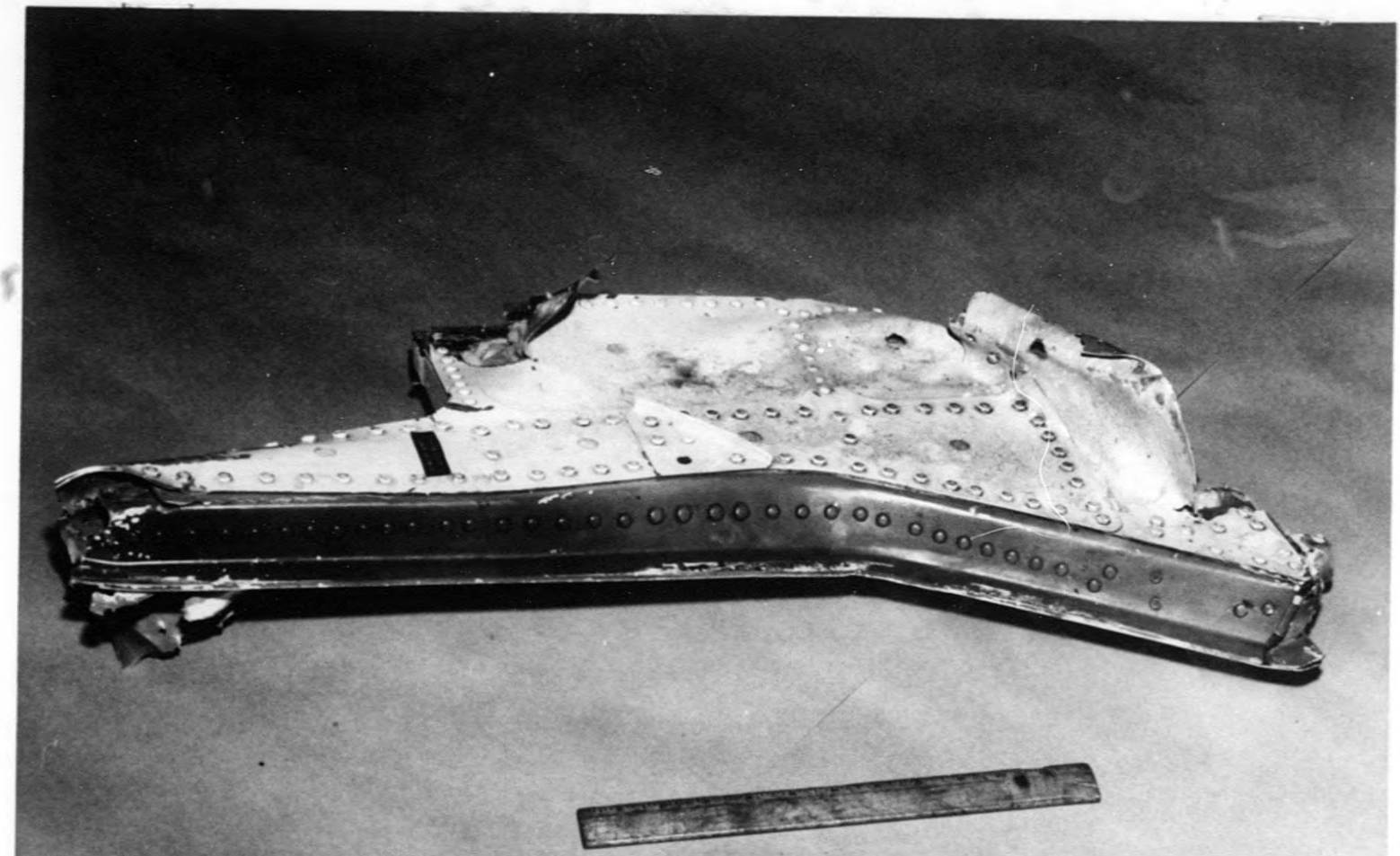
ENCLOSURE (16)

VF-74 SERIAL 2-65A, 26 NOVEMBER 1965, F4B BUNO 150410, PILOT MANFREDI

PHOTO OF: (A) SECTION OF TRAILING EDGE FLAP (UNDETERMINED STARBOARD OR PORT)
(B) PIECE OF STYRAFOAM PLASTIC (SAME WIDTH AS GEAR DOOR)
(C) PIECE OF INBOARD UPPER WING SURFACE.

ENCLOSURE (17)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH OPNAV INST 3750.6



VF-74 SERIAL 2-65A, 26 NOVEMBER 1965 F4B BUNC 150410, PILOT MANFREDI

STARBOARD MAIN LANDING GEAR DOOR SHOWING FORWARD EDGE (NOTE NO ABRASIONS) AND INBOARD SURFACE

ENCLOSURE (18)

SPECIAL HANDLING REQUIRED IAW PARA 66, OPNAVINST 3750.6E

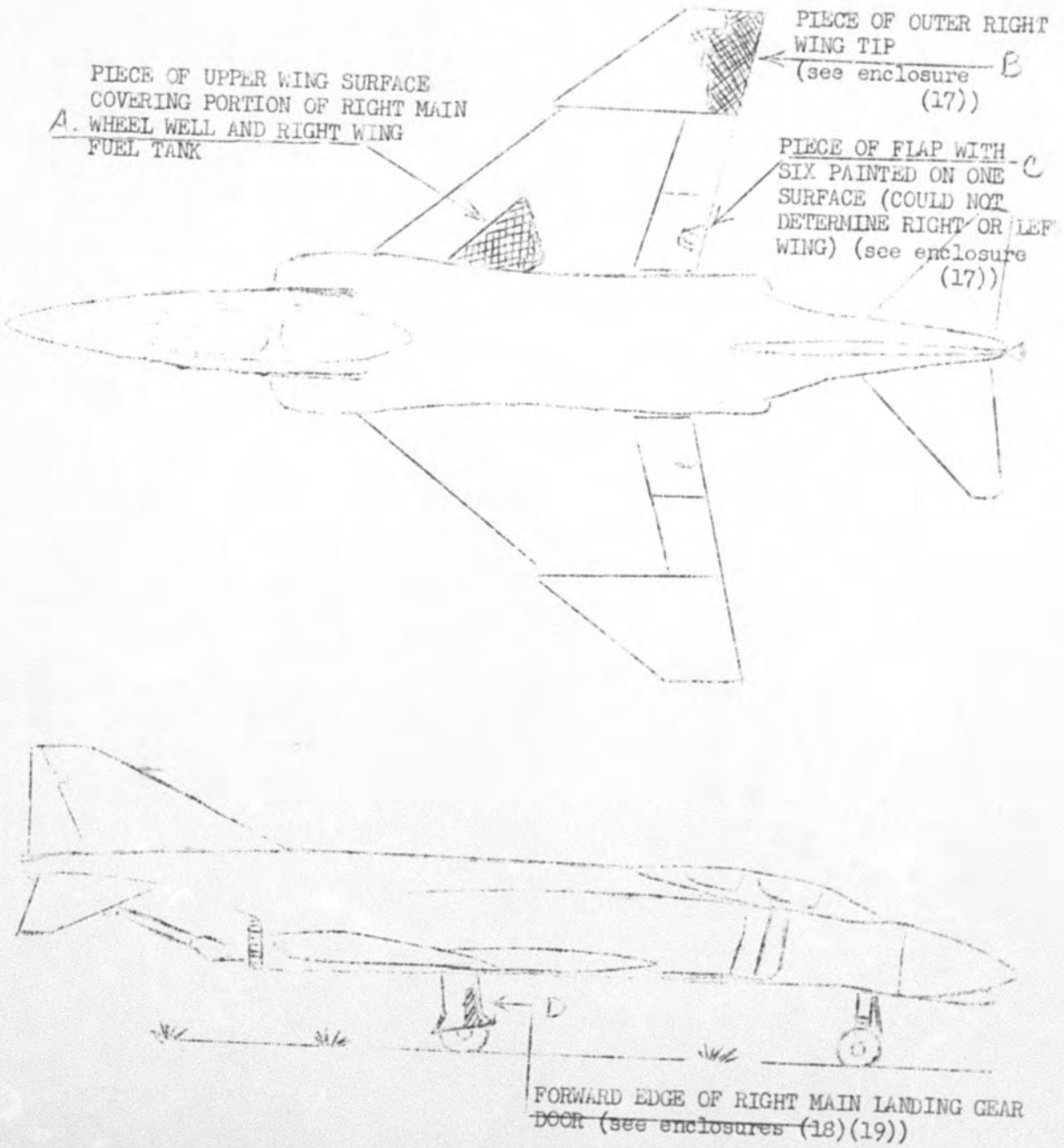
VF-74 SERIAL 2-65A, 26 NOVEMBER 1965, F4B BUNO 150410, PILOT MANFREDI

STARBOARD MAIN LANDING GEAR DOOR VIEWED FROM LOWER AFT SHOWING OUTBOARD SURFACE. (NOTE WIDTH OF STYROFOAM PLASTIC FILLER)

ENCLOSURE (19)

SPECIAL HANDLING REQUIRED IAW PARA 66, OPNAVINST 3750.6E

DIAGRAM OF F4B SHOWING LOCATION OF PARTS RECOVERED BY SEARCH OPERATION.



E THE PIECE OF STYROFOAM PLASTIC COULD NOT BE FITTED TO ANY OTHER PIECE OF WRECKAGE, HOWEVER, IT IS THE SAME THICKNESS AS THAT USED AS MAIN LANDING GEAR DOOR FILTER.

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 64 OF OPNAV INST 3750.6E

ENCLOSURE (20)

Statement of LTJG [redacted] [redacted]/1315, USNR, Helo Pilot, concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI.

On the night of 26 November 1965, at approximately 1955 hours, while flying plane guard from USS FORRESTAL (CVA-59) in UH-2A helicopter BUNO 149741, I observed what appeared to be the running lights of an aircraft sinking from its normal path following a catapult shot. My aircraft's position at the time was approximately one half mile abeam the starboard quarter of FORRESTAL, on the same heading as the ship's, at four-hundred feet altitude. The lights converged with the ocean surface at what appeared to be from one-half to three-quarters of a mile forward of the ship, and slightly starboard.

My aircraft's UHF was set on channel #15(333.0) at this time. I heard a transmission that sounded like, "Angel zero two, do you have the aircraft that went into the water?" I replied that I did, and continued on the same heading for a few seconds, expecting the ship to veer port and deliver instructions for my aircraft to proceed to the scene of the collision. At this time there was almost uninterrupted radio traffic from center, controlling aircraft in the pattern, and an attempt by co-pilot, LTJG [redacted] to contact Primary and verify an accident and receive instructions failed.

Since the ship did not change course and I had proceeded up-wind too far to make a safe instrument descent to a hover, I commenced a 360 degree turn to the right. After 270 degrees of this turn a flare was visible in the water at what appeared to be the accident scene, and I commenced a descent, continuing the turn into the wind line.

Upon arriving over the flare none of our crew were able to sight any evidence of wreckage. While hovering and searching the area of the first flare we sighted two others further along the ship's course, and moved to hover altitude to the second area. Results of continued search in the greater area of these three original flares were negative.

On the later of two subsequent search flights during the same night we discovered five or six small items in the vicinity of the crash, and marked the areas with flares for the ships in company to pick up. The single item identified was a F-4 main landing gear cover hinge-cover. We sighted two or three items that appeared to have reflective tape on them, but were unable to spot them a second time when we approached their areas at hover altitude.

I was designated a Naval Aviator on 30 January 1965 and have 798 hours total flight time, of which 574 hours are in helo type aircraft.

[redacted]

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE

OPNAV FORM 3750-8 (REV. 3-63) — SPECIAL HANDLING REQUIRED - *See OPNAVINST 3750.6E for instructions.* — OPNAV REPORT 3750-7

SECTION A - IDENTIFICATION

1. FROM (Name and mailing address of activity)	2. MOR NUMBER	3. LEAVE BLANK
FIGHTER SQUADRON 74, F.P.O. NEW YORK, N.Y. 09501	2-65A	

4. TYPE OF MISHAP	5. TIME & ZONE	6. DATE	7. GEOGRAPHICAL LOCATION
[X] ACCIDENT [ ] GROUND ACCIDENT [ ] INCIDENT	1935A	26 Nov 1965	Lat 41°14" N, Lon 10°29.5" E

8. MODEL A/C	9. BUNO	10. NO. OF OCCUPANTS	11. DAMAGE CODE	12. UNIT OPERATING A/C
F4B	150410	2	ALFA	VF-74

13. INDIVIDUALS INVOLVED USE ADDITIONAL SHEETS IF REQUIRED NAME (Last, first and middle initial)	14. UNIT TO WHICH ATTACHED	15. RANK/ RATE	16. FILE/SERV. NO. DESIGNATOR	17. DUTY ASSIGNMENT ABOARD A/C	17. DUTY ASSIGNMENT AT MISHAP	18. DATE OF LAST PHYSICAL	19. PHYSICALLY QUALIFIED FOR FLIGHT	20. BRANCH OF SERVICE	21. INJURY CODE	22. DISPOSITION
A. MANFREDI, John P.	VF-74	LCDR	(b) (6) [redacted]	A		20Sept 1965	Yes	USN	U	U
B. LEE, John E.	VF-74	ENS		I		11 Feb 1965	Yes	USNR	U	U
C.										
D.										

23. CLARIFICATION OF ITEMS 13-22 WHEN NECESSARY

24. MODEL OTHER A/C IF INVOLVED	25. BUNO	26. NO. OF OCCUPANTS	27. UNIT OPERATING A/C	28. DAMAGE CODE	29. MOR NO.
N/A	N/A	N/A	N/A	N/A	N/A

30. NARRATIVE ACCOUNT OF MISHAP *(Use additional 8 x 10½ sheets if required)*

LCDR MANFREDI and his Radar Intercept Officer, ENS LEE, were launched in F4B, BUNO 150410 at 1935A, 26 November 1965, from the number four catapult of USS FORRESTAL, CVA-59, while operating in the Western Mediterranean area. Initial aircraft pitch attitude, following the launch, was slightly excessive as in a moderate over-rotation condition. It was countered momentarily and followed by a slow increase in pitch until an extreme nose high attitude was reached. As the aircraft passed the bow of the ship still climbing, it began a slow series of wing rocking motions about its longitudinal axis. As the intensity of the wing rock increased, the aircraft developed a fishtail yawing, oscillating motion about its vertical axis the combination of which produced an action characteristic of a Dutch roll. The aircraft entered a slow right turn while maintaining a nose high wing rocking condition of flight from a position slightly ahead of the ship and the apogee of the climb reached approximately 250 feet. The aircraft crossed the bow of the ship and the amplitude of the wing rock increased until a plan view of the aircraft's lights could be seen as the aircraft reached its maximum angle of bank during the wing rocking motion. From the moment the aircraft entered the right turn it began losing altitude so as to follow a descending arc from approximately 250 feet altitude at a point 1/2 mile ahead of the ship to the point of water entry, 15 degrees starboard 3/4 mile ahead of the ship. The aircraft entered the water right wing first with 70 to 90 degrees ' angle of bank. At the moment of water entry, the forward momentum of the aircraft had been arrested and the entry may be described as a slicing action with the aircraft pivoting about its starboard wing. There was no fire or explosion associated with the impact. The aircraft disappeared below the surface immediately. The engines appeared to be operating at full military power throughout the flight with no indication of the afterburners having been selected. No ejection attempt by either crewmember was observed.

31. PRIMARY CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

32. CONTRIBUTING CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

33. POSSIBLE CAUSE FACTOR ASSIGNED BY ACCIDENT BOARD

34. HAVE ALL FINDINGS, CONCLUSIONS, & RECOMMENDATIONS BEEN MADE AVAILABLE TO THE A/C ACCIDENT BOARD? IF NO, EXPLAIN. YES [X] NO [ ]

35. REPORT PREPARATION CHECK LIST

[X] ALL PARTS OF FORM COMPLETED [ ] DRAWINGS SKETCHES, PHOTOS [ ] SURVIVORS NARRATIVES [ ] WITNESS STATEMENTS [X] CONCLUSIONS & RECOMMENDATIONS [X] REQUIRED COPIES FURNISHED

36. REPORT FILED BY (Name & signature of medical officer)	DATE	37. FORWARDED (Name & title of commanding officer)	DATE
(b) (6) [redacted] LT MC USN CVW-8, FLIGHT SURGEON	16 Dec 1965	(b) (6) [redacted] CDR USN COMMANDER, AIR WING EIGHT	17 Dec 1965

OP-05F

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—683974

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PART II

OPNAV FORM 3750-8A (REV. 3-63) — SPECIAL HANDLING REQUIRED. — *See OPNAVINST 3750.6E for instructions.* — OPNAV REPORT 3750-7

SECTION B - FACTORS CONTRIBUTING TO OR RELATING TO MISHAP BY PHASE OF MISHAP *(List in order in accordance with Section B of inst.)*

PHASE CODE: A - ACCIDENT; E - ESCAPE/EGRESS; S - SURVIVAL; R - RESCUE

FACTOR WEIGHT: M - MAJOR; C - CONTRIBUTING; Q - QUESTIONABLE OR POSSIBLE

1. FACTORS	2. PHASE OF MISHAP (See code at right) A	E	S	R	REMARKS
FATIGUE	C				Pilot had 5 hours sleep; desired no day flight to complete administrative paper work, but later requested the night hop.
HABIT INTERFERENCE	M	Q			Confusion on flight deck; plane respotted.
IMPAIRED ALERTNESS	C	Q			Secondary to lack of sleep.
INTERPERSONAL TENSIONS	C				"Dressed down" by senior officer at dinner.
MORALE					Intimated serious thoughts about resigning commission as soon as possible to retire.
PREOCCUPATION	C	Q			Appeared quiet and withdrawn in ready room.
SLEEP DEPRIVATION	C				See under FATIGUE above.
SPECIAL PERSONAL PROBLEM	C				See INTERPERSONAL TENSIONS, MORALE, AND PREOCCUPATION above.
VISIBILITY RESTRICTED	M				Flight was on very dark, horizonless night.

SECTION C — AIR CREW DATA

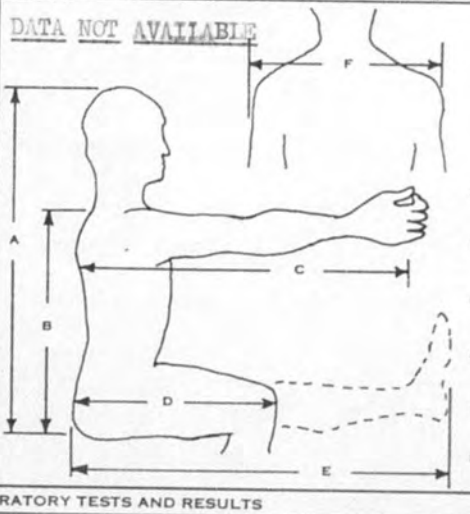
1. FLIGHT TIME LAST 30 DAYS *(All models)*	33.5
2. FLIGHT TIME LAST 24 HOURS *(All models)*	0.0
3. NO. FLIGHTS LAST 24 HOURS *(Include present flight)*	1.0
4. TIME AT CONTROLS THIS FLIGHT	Less 1 minute
5. TOTAL FLIGHT TIME ALL MODELS	3,202.1

FLIGHT TIME THIS MODEL	6. TOTAL	7. LAST 30	8. 60 DAYS	9. 90 DAYS
	667.6	33.5	55.1	103.2

10. NO. GROUNDINGS PAST YEAR	0
11. NO. DAYS GROUNDED PAST YEAR	0
12. DATES AND TYPES OF PRIOR MISHAPS	Several accidents and/or incidents are known to have occurred; however, cannot be verified here.
13. NO. HRS. IN A DUTY STATUS LAST 24 HRS.	19 (Est)
14. DIRECTION FACING AT TIME OF MISHAP	Forward
15. LOCATION AT TIME OF MISHAP	Front cockpit

SECTION D — ANTHROPOMETRIC DATA (Compare with health record)

DATA NOT AVAILABLE



AGE	37
HEIGHT	——— IN.
WEIGHT	——— LB.
A. SITTING HEIGHT	——— IN.
B. TRUNK HEIGHT	——— IN.
C. FUNCTIONAL REACH	——— IN.
D. BUTTOCK - KNEE	——— IN.
E. LEG LENGTH	——— IN.
F. SHOULDER WIDTH (BIDELTOID)	——— IN.

16. **LABORATORY TESTS AND RESULTS**

SPECIMEN	TEST PERFORMED	RESULTS	SPECIMEN	TEST PERFORMED	RESULTS
BLOOD 1.	NONE		TISSUE: (CNS)	NONE	
2.			MUSCLE		
3.			VISCERA		
URINE			OTHER:		
G.I. CONTENT					

17. X-RAY RESULTS: NONE

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL: MANFREDI, John P. LCDR USN

OP-05F

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MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 3

OPNAV FORM 3750-8B (REV. 3-63) — SPECIAL HANDLING REQUIRED — *See OPNAVINST 3750.6E for instructions.* — OPNAV REPORT 3750-7

SECTION E — INDIVIDUAL CHRONOLOGICAL DATA

SEE PAGE 8 PARA. 10 OF INSTRUCTION
TO BE COMPLETED ON PLANE COMMANDER, PILOT, CO-PILOT, OTHER INDIVIDUAL IN CONTROL OF AIRCRAFT AT TIME OF MISHAP, AND/OR INDIVIDUAL CAUSING THE MISHAP

USE LOCAL TIME AND BRIEFLY RECORD ACTIVITY WITHIN EACH COLUMN

25 Nov 1965

48 HOURS PRIOR TO MISHAP

TIME	
1800	Dinner in wardroom.
1900	Ready room business.
2100	To stateroom for administrative work.
25 Nov 1965	
0200	Retired.
0900	Awake. Shower & shave. No breakfast.
1000	To ready room.
1200	Lunch in wardroom.
1300	Nap in stateroom.
1500	Ready room business.
1700	Dinner in wardroom.
1800	Ready room business.
1900	Administrative work in stateroom.
26 Nov 1965	
0300	Retired.
0800	Awake. Shower & shave. No breakfast.
0900	To ready room. Quiet and pensive; asked not to be scheduled to fly.
1000	Unexpected meeting in Operations with other units in exercise. He heatedly condemned whole exercise.
1200	Lunch in wardroom. Discussion of own displeasure with exercise.
1500	Squadron business in stateroom. One short, uneventful trip to ready room.
1700	Dinner in wardroom. Argument with senior officer over mission.
1800	Brief in ready room by pilot himself. Expressed views that exercise planning was inadequate from higher echelon.

TIME	
1900	Relieved fellow pilot 15 minutes late. To flight deck with RIO. Began preflight on A/C 105 and was towed toward catapult when tractor struck jet blast deflector shattering tow bar. Downed 105 and took A/C 106 on No. 4 elevator, just recovered in up status. Began preflight, started engines, and began refueling when hose lost pressure; plane was towed to No. 4 catapult. Started refueling again. Plane captain noted pilot's seat pin to be still engaged. After rushed bridle hookup, nose was raised and 100% power obtained from engines.
ACCIDENT PHASE 1935	A/C 106 launched from No. 4 catapult and started wing rocking with nose high attitude; rolled right into water.
ESCAPE PHASE	No evidence of attempted ejection by either crewmember.
SURVIVAL PHASE	

TIME OF RESCUE No rescue.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL

MANFREDI, John P. LCDR USN

OP-05F

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MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 4

OPNAV REPORT 3750-7

OPNAV FORM 3750-8C (REV. 3-63) SPECIAL HANDLING REQUIRED - *See OPNAVINST 3750.6E for instructions.*

SECTION F — PATHOLOGICAL DATA — *(Refer to Section F of instructions.)*

1. INJURY CODE AND DISPOSITION: U U

2. PRE-EXISTING PHYSICAL DEFECTS: NONE

3. UNCONSCIOUSNESS: ☐ NO ☐ YES DURATION: N/A

4. DROWNED ☐ N/A | 5. ASPHYXIATED ☐ N/A | 6. SHOCK ☐ MILD ☐ MODERATE N/A ☐ SEVERE | 7. EXPOSURE ☐ MILD ☐ MODERATE N/A ☐ SEVERE | 8. EXTENT OF CARBONIZATION: N/A

9. IF ADMITTED TO SICK LIST, GIVE DIAGNOSIS: N/A

10. PLACE OF HOSPITALIZATION: N/A

11. GROUNDED? IF YES, GIVE REASON: ☐ NO ☐ YES N/A

12. DURATION *(See instruction)*: N/A

13. PRIMARY CAUSE OF DEATH: Cause unknown

14. SECONDARY CAUSE OF DEATH: Causes unknown

15. AUTOPSY CONDUCTED BY: N/A ☐ PATHOLOGIST, MEDICAL OFFICER PRESENT ☐ PATHOLOGIST, MEDICAL OFFICER NOT PRESENT ☐ MEDICAL OFFICER

16. N/A ☐ PROTOCOL ATTACHED ☐ WILL BE FORWARDED

17. WAS "AUTOPSY MANUAL, NAVMED P5065" USED? ☐ YES ☐ NO N/A

18. IF NO AUTOPSY CONDUCTED, GIVE REASON: Body Not Recovered

19. INJURIES	PHASE SUSTAINED A	E	S	R	CAUSE AND MECHANISM *(If unknown, theorize)*
N/A					

20. REMARKS

Because of above Injury Code and Disposition, this page is not applicable.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL: MANFREDI, John P. LCDR USN

OP-05F

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MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 4

OPNAV REPORT 3750-7

OPNAV FORM 3750-8C (REV. 3-63) SPECIAL HANDLING REQUIRED - *See OPNAVINST 3750.6E for instructions.*

SECTION F — PATHOLOGICAL DATA — *(Refer to Section F of instructions.)*

1. INJURY CODE AND DISPOSITION: U U

2. PRE-EXISTING PHYSICAL DEFECTS:
1) Deviated nasal septum, asymptomatic, NCD.
2) Small left varicocele, asymptomatic, NCD.
3) Tinea pedis, bilateral, mild, NCD.
4) Genu valgus, mild, NCD.

3. UNCONSCIOUSNESS: ☐ NO ☐ YES DURATION: N/A

4. DROWNED: ☐ N/A

5. ASPHYXIATED: ☐ N/A

6. SHOCK: N/A ☐ MILD ☐ MODERATE ☐ SEVERE

7. EXPOSURE: N/A ☐ MILD ☐ MODERATE ☐ SEVERE

8. EXTENT OF CARBONIZATION: N/A

9. IF ADMITTED TO SICK LIST, GIVE DIAGNOSIS: N/A

10. PLACE OF HOSPITALIZATION: N/A

11. GROUNDED? IF YES, GIVE REASON: ☐ NO ☐ YES N/A

12. DURATION *(See instruction)*: N/A

13. PRIMARY CAUSE OF DEATH: Cause unknown

14. SECONDARY CAUSE OF DEATH: Causes unknown

15. AUTOPSY CONDUCTED BY: N/A ☐ PATHOLOGIST, MEDICAL OFFICER PRESENT ☐ PATHOLOGIST, MEDICAL OFFICER NOT PRESENT ☐ MEDICAL OFFICER

16. N/A ☐ PROTOCOL ATTACHED ☐ WILL BE FORWARDED

17. WAS "AUTOPSY MANUAL, NAVMED P5065" USED? N/A ☐ YES ☐ NO

18. IF NO AUTOPSY CONDUCTED, GIVE REASON: Body Not Recovered.

19. INJURIES	PHASE SUSTAINED A	E	S	R	CAUSE AND MECHANISM *(If unknown, theorize)*
N/A					

20. REMARKS

Because of above Injury Code and Dispos ition, this page is not applicable.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL

LEE, JOHN E. ENS USNR

OP-05F

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—685972

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT — PAGE 4A OPNAV REPORT 3750-7

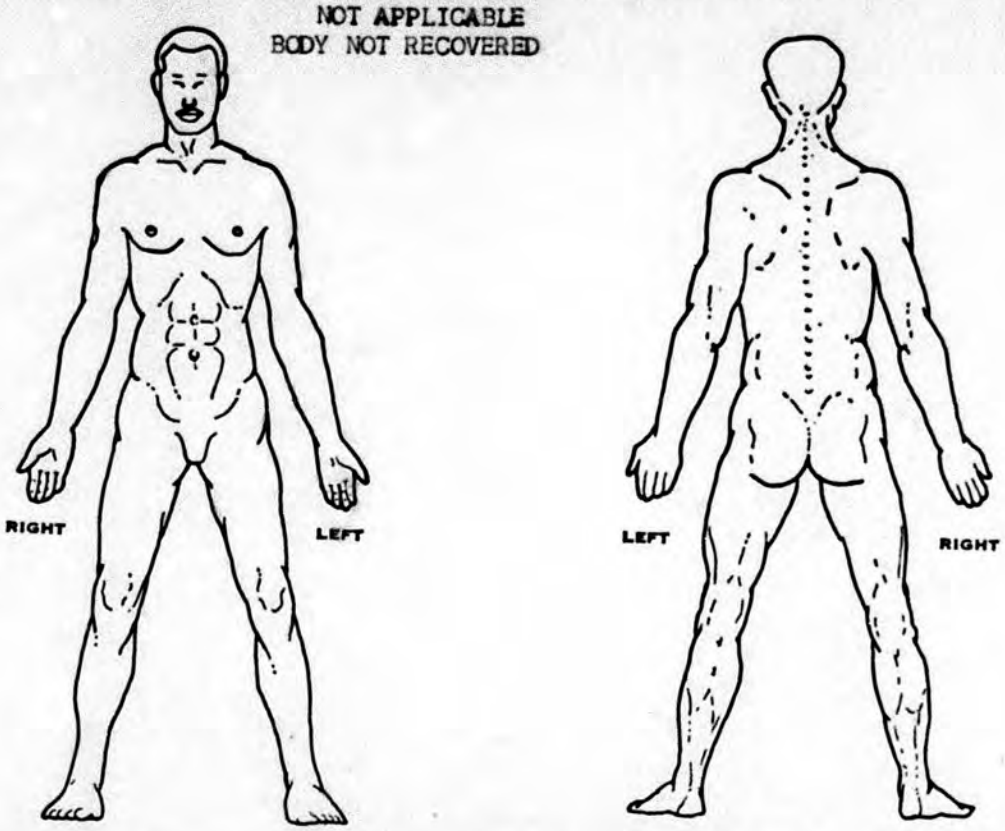
OPNAV FORM 3750-8D (REV. 3-63) SPECIAL HANDLING REQUIRED. *See OPNAV INST 3750.6E for instructions*

SECTION F *(Continued)* SURFACE INJURIES

DESCRIBE AND SHOW GRAPHICALLY BY OUTLINING AND SHADING AFFECTED AREAS
ALL LACERATIONS, ABRASIONS, CONTUSIONS, PUNCTURE WOUNDS, SPRAINS AND BURNS

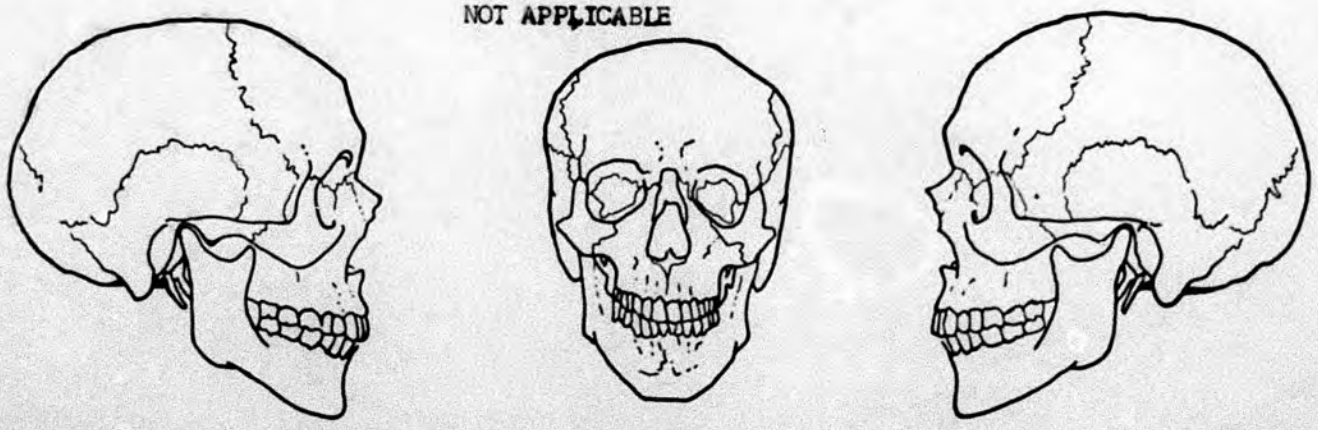
RECORD ALL INJURIES NO MATTER HOW TRIVIAL, WHETHER PATIENT LIVED OR DIED

NOT APPLICABLE
BODY NOT RECOVERED



DETAILS OF SKULL FRACTURES AND BRAIN INJURY. DESCRIBE AND SHOW GRAPHICALLY.
1. ALL FRACTURES, BY TYPE *(Simple, depressed, or indirect, etc.)* 2. SITES OF BRAIN LESIONS, IF ANY. 3. DISLOCATIONS OF MANDIBLE.

NOT APPLICABLE



MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL
MANFREDI, John P. LCDR USN

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—686327

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT — PAGE 4A

OPNAV REPORT 3750-7

OPNAV FORM 3750-8D (REV. 3-63)

SPECIAL HANDLING REQUIRED. *See OPNAV INST 3750.6E for instructions*

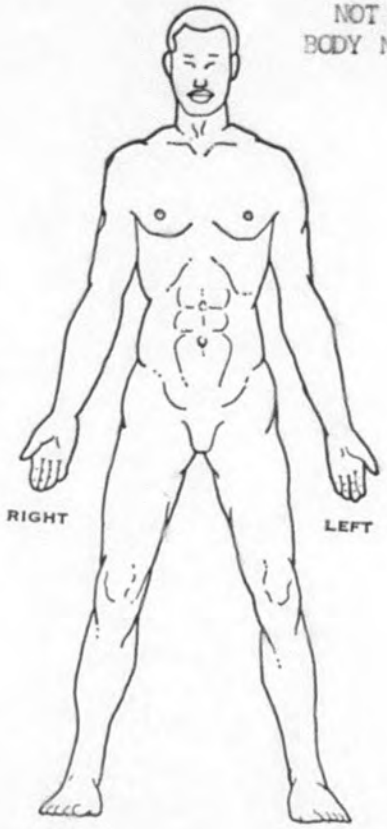
SECTION F *(Continued)*

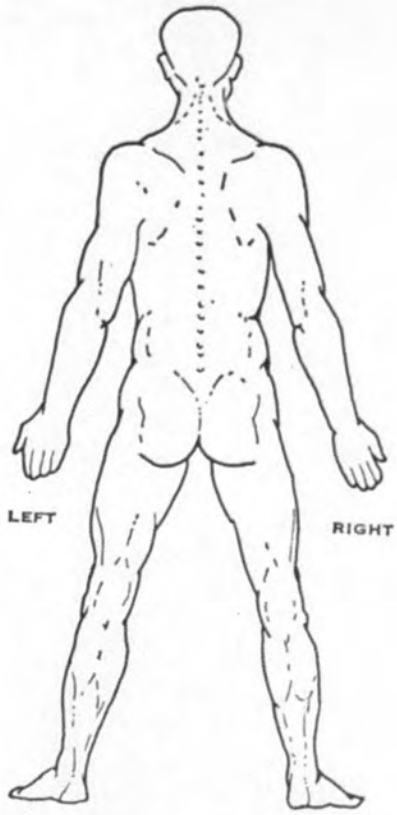
SURFACE INJURIES

DESCRIBE AND SHOW GRAPHICALLY BY OUTLINING AND SHADING AFFECTED AREAS
ALL LACERATIONS, ABRASIONS, CONTUSIONS, PUNCTURE WOUNDS, SPRAINS AND BURNS

RECORD ALL INJURIES NO MATTER HOW TRIVIAL, WHETHER PATIENT LIVED OR DIED

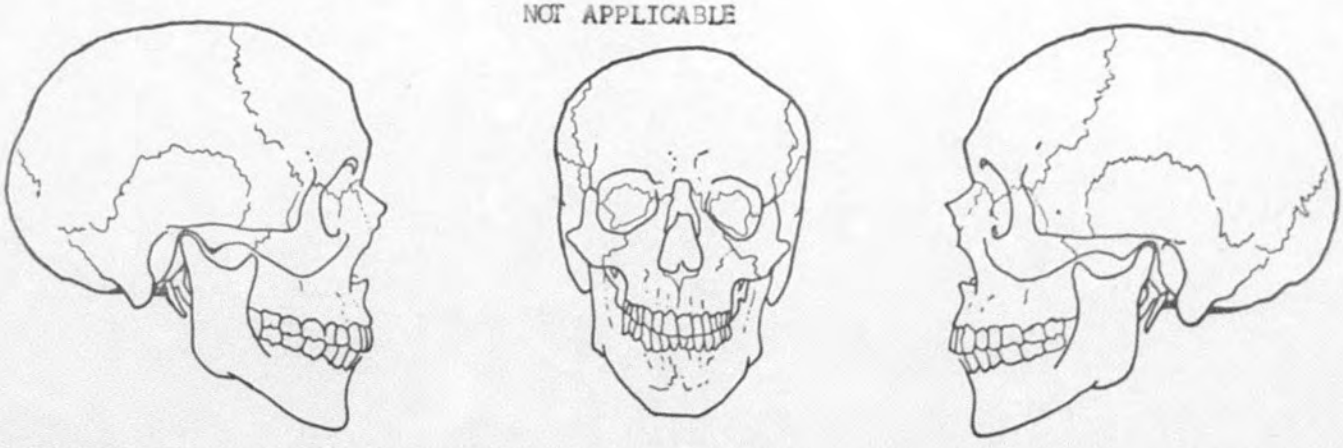
NOT APPLICABLE
BODY NOT RECOVERED





DETAILS OF SKULL FRACTURES AND BRAIN INJURY. DESCRIBE AND SHOW GRAPHICALLY.
1. ALL FRACTURES, BY TYPE *(Simple, depressed, or indirect, etc.)* 2. SITES OF BRAIN LESIONS, IF ANY. 3. DISLOCATIONS OF MANDIBLE.

NOT APPLICABLE



MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL

LEE, John E. ENS USNR

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—686327

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT - PAGE 4B

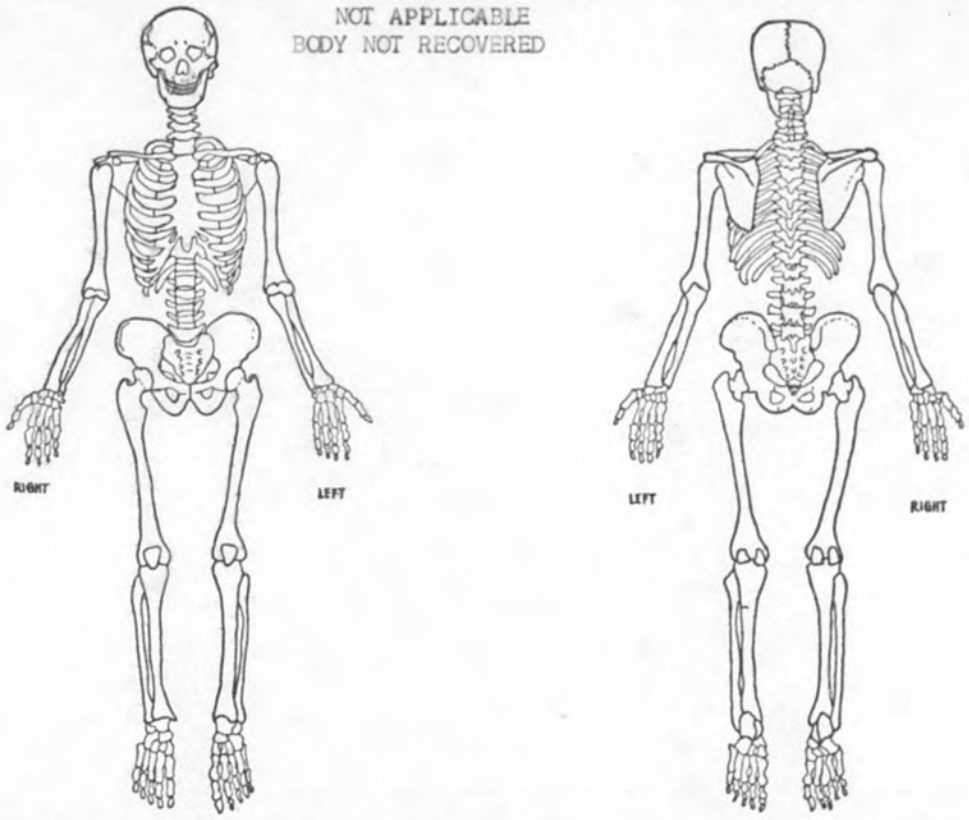
OPNAV REPORT 3750-7

OPNAV FORM 3750-8E (Rev. 3-63) SPECIAL HANDLING REQUIRED See OPNAVINST 3750-6E for instructions.

SECTION F (Continued) SKELETAL INJURIES

DESCRIBE AND SHOW GRAPHICALLY BY OUTLINING
ALL FRACTURES BY TYPE (Simple, compound, comminuted, etc.) AND DISLOCATIONS INDICATING DIRECTION OF DISPLACEMENT.

NOT APPLICABLE
BODY NOT RECOVERED



DESCRIBE AND SHOW GRAPHICALLY: 1. ALL FRACTURES OF SPINAL COLUMN (Simple, compressed, etc.)
2. DISLOCATION AND DIRECTION OF DISPLACEMENT. 3. SITES OF CORD DAMAGE, IF ANY.

DETAILS OF SPINAL INJURIES

NOT APPLICABLE

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

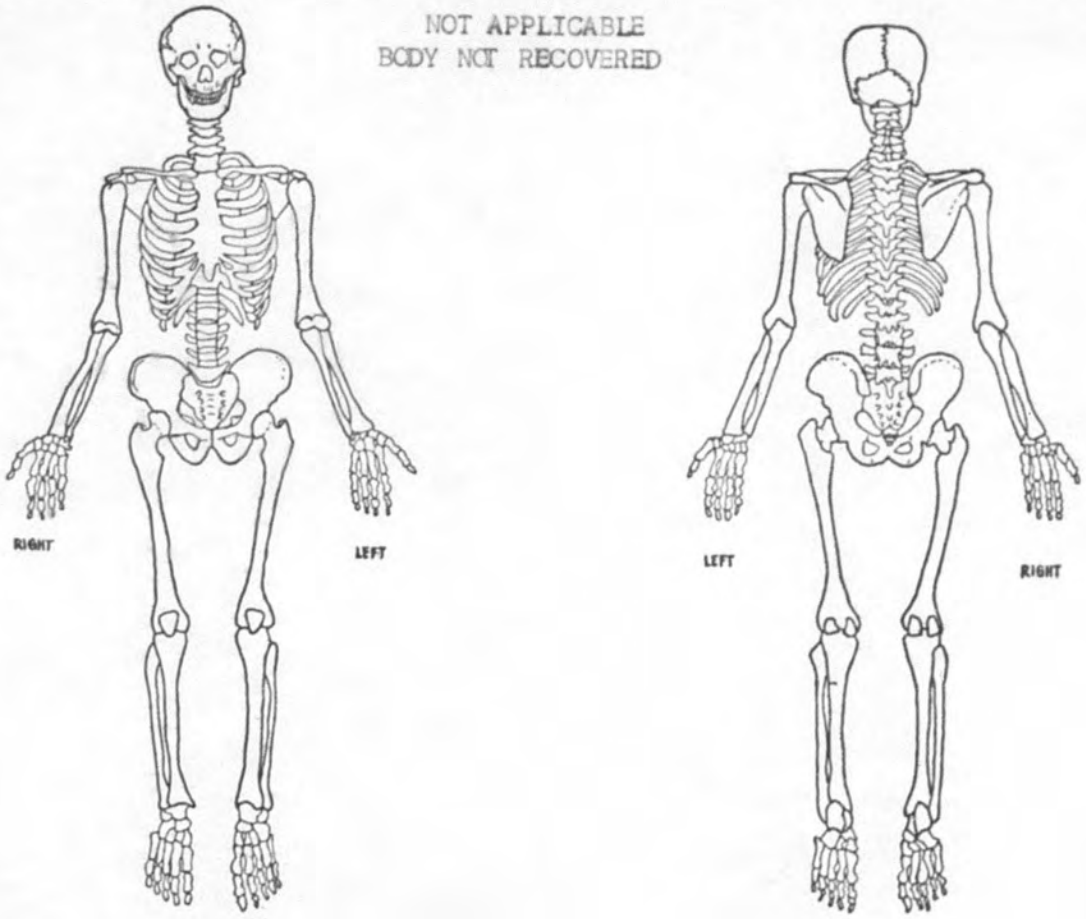
NAME OF INDIVIDUAL
MANFREDI, John P. LCDR USN

OP-05P

SECTION F (Continued) SKELETAL INJURIES

DESCRIBE AND SHOW GRAPHICALLY BY OUTLINING
ALL FRACTURES BY TYPE (Simple, compound, comminuted, etc.) AND DISLOCATIONS INDICATING DIRECTION OF DISPLACEMENT.

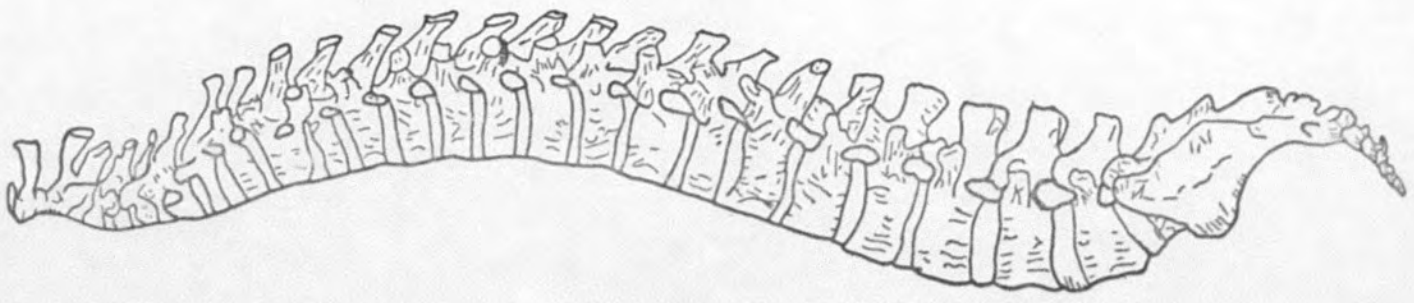
NOT APPLICABLE
BODY NOT RECOVERED



DESCRIBE AND SHOW GRAPHICALLY: 1. ALL FRACTURES OF SPINAL COLUMN (Simple, compressed, etc.)
2. DISLOCATION AND DIRECTION OF DISPLACEMENT. 3. SITES OF CORD DAMAGE, IF ANY.

DETAILS OF SPINAL INJURIES

NOT APPLICABLE



MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	I

NAME OF INDIVIDUAL
LEE, John E. ENS USNR

SECTION G — ESCAPE, PERSONAL AND SURVIVAL EQUIPMENT

LIST AND CODE IN ACCORDANCE WITH SECTION G OF INSTRUCTION: PHASE CODES: A-ACCIDENT/MISHAP E-ESCAPE/EGRESS PHASE S-SURVIVAL R-RESCUE PHASE

1. EQUIPMENT DESCRIPTION INCLUDING SPECIFIC MODEL DESIGNATION	2. MODIFICATION	3. RE-QUIRED	4. AVAIL-ABLE	5. NEED	6. USED	7. FAILED	8. REMARKS (Explain failures, loss, and/or difficulty encountered. Use additional 8x10½ plain paper if needed.)
A) Helmet, pilot, protective APH 5	Reconditioned	AESR					
B) Oxygen mask A13A		AE					
C) Microphone assembly ANBMC-1		A					
D) Robert Shaw Fulton oxygen mini-regulator 226-20004-3		AE					
E) Upper block assembly 21009-9		AE					
F) Cable assembly (communications) 21018-36		A					
G) Hose assembly (oxygen) 21026-36		AE					
H) Coveralls, summer, flying 40L-9D8415-543		See Remarks					These were not authorized for the night of the accident; the MK4A was required, but not worn.
I) Boots, flying, safety (size and stock no. unknown)		AESR					
J) Harness, torso, integrated MA-2		AESR					
K) Preserver, life with 2 Day-night flares and 2 Dye markers MK-3C		AESR					
L) Survival vest with		AESR					
a. 2 seek kits							
b. 1 strobe light ACR4-F							
c. 1 shroud cutter							
d. 1 survival knife							
e. 1 flashlight MX991/U							
f. 1 pencil flare gun MK 79 MOD 0 9 MK 80 Cartridges		AESR	(See	Remarks)			.38 caliber pistol with tracer ammunition required, but not worn
g. 2 star flares							

SECTION H — NARRATIVE OF ESCAPE/EGRESS, SURVIVAL AND RESCUE PHASES

No evidence exists that escape/egress was attempted. The possibility exists that the pilot's seat pin was still engaged at the time of the accident.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL
MANFREDI, John P. LCDR USN

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—686328

SECTION G — ESCAPE, PERSONAL AND SURVIVAL EQUIPMENT

LIST AND CODE IN ACCORDANCE WITH SECTION G OF INSTRUCTION: PHASE CODES: A-ACCIDENT/MISHAP E-ESCAPE/EGRESS PHASE S-SURVIVAL R-RESCUE PHASE

1. EQUIPMENT DESCRIPTION INCLUDING SPECIFIC MODEL DESIGNATION	2. MODIFICATION	3. RE-QUIRED	4. AVAIL-ABLE	5. NEED	6. USED	7. FAILED	8. REMARKS (Explain failures, loss, and/or difficulty encountered. Use additional 8x10½ plain paper if needed.)
A) Helmet, pilot, protective APH 6(A)		AESR					
B) Oxygen mask A13A		AE					
C) Microphone assembly ANBMC-1		A					
D) Robert Shaw Fulton oxygen mini-regulator 226-20004-3		AE					
E) Upper block assembly 21009-9		AE					
F) Cable assembly (communications) 21018-36		A					
G) Hose assembly (oxygen) 21026-36		AE					
H) Anti-Exposure coveralls MK5A		AESR					
I) Boots, flying, safety (size and stock no. unknown)		AESR					
J) Harness, torso, integrated MA2P		AESR					
K) Preserver, life with 2 Day-night flares and 2 Dye markers		AESR					
L) Survival vest (no stock no.; vest of VF-74 design) a. 2 seek kits b. 1 light, marker, distress Model 761A c. 1 strobe light ACR4F d. 1 shroud cutter e. 1 survival knife f. 1 flashlight MX991/U g. 1 pencil flare gun MK79 Mod 0 9 MK 80 Cartridges h. 1 .38 cal pistol with tracer ammunition i. 2 star flares j. 1 signal mirror k. 2 dye markers		AESR					

NARRATIVE OF ESCAPE/EGRESS, SURVIVAL AND RESCUE PHASES

No evidence exists that escape/egress was attempted. The Radar Intercept Officer may have been instructed to eject; however, there was so little time involved in the whole accident that it is entirely conceivable that he did not know the gravity of the situation and/or "froze" when instructed to eject.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	I

NAME OF INDIVIDUAL
LEE, John E. ENS USNR

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—686328

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT — PAGE 6

OPNAV REPORT 3750-7

OPNAV FORM 3750-8G (REV. 3-63)

SPECIAL HANDLING REQUIRED. *See OPNAV INST 3750.6E for instructions*

SECTION I — DETAILS OF ESCAPE/EGRESS/SURVIVAL PHASES REFER TO SECTION I OF INSTRUCTIONS

1. TOPOGRAPHY OF INDIVIDUAL'S LANDING SITE

[X] WATER [ ] LAND [ ] OTHER

2. TYPE OF EGRESS

[ ] EJECTION [ ] BAILOUT [ ] UNDERWATER [ ] NORMAL [X] OTHER *(State type)*

S	E		REMARKS
X		3. NOT ATTEMPTED	See Section H, page 5.
		4. ATTEMPTED	
		5. ACCOMPLISHED	
		6. THRU CANOPY	
YES	NO	EGRESS DIFFICULTIES	IF YES, EXPLAIN DIFFICULTIES
		7. PRIOR TO EGRESS	
		8. DURING EGRESS	
		9. SUBSEQUENT TO EGRESS	

10. GIVE TYPE AND MODEL OF EJECTION SEAT USED: Martin-Baker

11. METHOD OF FIRING SEAT: N/A — [ ] PRIMARY [ ] SECONDARY [ ] OTHER

12. SEQUENCE OF EJECTION: N/A

13. POSITION OF SEAT ON EJECTION: N/A — [ ] UP [ ] DOWN [ ] FORWARD [ ] AFT [ ] OTHER

14. ATTITUDE OR MANEUVER OF A/C AT EXIT: N/A

15. AIRSPEED: N/A

16. ALTITUDE AT TIME OF EXIT (FEET): N/A — ABOVE SEA LEVEL _____ ABOVE TOPOGRAPHY _____

17. ALTITUDE OF PARACHUTE OPENING: N/A

18. WEIGHT: N/A

19. TIME IN WATER: N/A

20. TIME IN RAFT: N/A

21. WIND VELOCITY: 34 knots, 270°

22. WAVE HEIGHT: 2 feet

23. WAVE INTERVAL: Not known

24. AIR TEMPERATURE: 63°F

25. WATER TEMPERATURE: 66°F

26. VISIBILITY: 10 miles

27. ALERTING FACTORS: OBSERVERS FROM FLIGHT DECK.

28. MEANS OF LOCATING ACCIDENT SITE: OIL SLICK AND FOAM AREA OFF THE STARBOARD SIDE OF THE SHIP

29. MEANS OF LOCATING SURVIVOR: NOT APPLICABLE

30. N/A

31. N/A

32. N/A

33. N/A

34. N/A

35. N/A

36. DID INDIVIDUAL DEPART FROM LANDING SITE? *(If Yes, Explain reason and sequence up to rescue)* N/A

[ ] NO [ ] YES

SECTION J — TRAINING FACTORS

1. DATE OF LAST TRAINING

LPC 4 May 1965 EJECTION TOWER Not known EJECTION SEAT 4 May 1965 SURVIVAL None

2. DID THE LACK OF TRAINING AND/OR EXPERIENCE PLAY A PART IN ANY PHASE OF THIS MISHAP? *(If yes, explain)*

[ ] NO [X] YES

The pilot w as inexperienced in waist catapult launches. The last waist catapult shot he had (a daytime one at that) was in February 1965 while on the previous Mediterranean cruise with VF-74.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	A

NAME OF INDIVIDUAL: MANFREDI, John P. LCDR USN

OP-05F

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—686529

MEDICAL OFFICER'S REPORT OF A/C ACCIDENT, INCIDENT, OR GROUND ACCIDENT — PAGE 6

OPNAV REPORT 3750-7

OPNAV FORM 3750-8G (REV. 3-63)

SPECIAL HANDLING REQUIRED. *See OPNAV INST 3750.6E for instructions*

SECTION I — DETAILS OF ESCAPE/EGRESS/SURVIVAL PHASES REFER TO SECTION I OF INSTRUCTIONS

1. TOPOGRAPHY OF INDIVIDUAL'S LANDING SITE

[X] WATER [ ] LAND [ ] OTHER

2. TYPE OF EGRESS

[ ] EJECTION [ ] BAILOUT [ ] UNDERWATER [ ] NORMAL [X] OTHER *(State type)*

S	E		REMARKS
X		3. NOT ATTEMPTED	See Section H, page 5.
		4. ATTEMPTED	
		5. ACCOMPLISHED	
		6. THRU CANOPY	
YES	NO	EGRESS DIFFICULTIES	IF YES, EXPLAIN DIFFICULTIES
		7. PRIOR TO EGRESS	
		8. DURING EGRESS	
		9. SUBSEQUENT TO EGRESS	

10. GIVE TYPE AND MODEL OF EJECTION SEAT USED: Martin-Baker

11. METHOD OF FIRING SEAT: N/A — [ ] PRIMARY [ ] SECONDARY [ ] OTHER

12. SEQUENCE OF EJECTION: N/A

13. POSITION OF SEAT ON EJECTION: N/A — [ ] UP [ ] DOWN [ ] FORWARD [ ] AFT [ ] OTHER

14. ATTITUDE OR MANEUVER OF A/C AT EXIT: N/A

15. AIRSPEED: N/A

16. ALTITUDE AT TIME OF EXIT (FEET): N/A — ABOVE SEA LEVEL _____ ABOVE TOPOGRAPHY _____

17. ALTITUDE OF PARACHUTE OPENING: N/A

18. WEIGHT: N/A

19. TIME IN WATER: N/A

20. TIME IN RAFT: N/A

21. WIND VELOCITY: 34 knots, 270°

22. WAVE HEIGHT: 2 feet

23. WAVE INTERVAL: Not known

24. AIR TEMPERATURE: 63°F

25. WATER TEMPERATURE: 66°F

26. VISIBILITY: 10 miles

27. ALERTING FACTORS: OBSERVERS FROM FLIGHT DECK.

28. MEANS OF LOCATING ACCIDENT SITE: OIL SLICK AND FOAM AREA OFF STARBOARD SIDE OF SHIP

29. MEANS OF LOCATING SURVIVOR: NOT APPLICABLE

30. N/A

31. N/A

32. N/A

33. N/A

34. N/A

35. N/A

36. DID INDIVIDUAL DEPART FROM LANDING SITE? *(If Yes, Explain reason and sequence up to rescue)* N/A

[ ] NO [ ] YES

SECTION J — TRAINING FACTORS

1. DATE OF LAST TRAINING

LPC 19 Nov 1964 EJECTION TOWER 19 Jun 1964 EJECTION SEAT 19 Nov 1964 SURVIVAL None

2. DID THE LACK OF TRAINING AND/OR EXPERIENCE PLAY A PART IN ANY PHASE OF THIS MISHAP? *(If yes, explain)*

[X] NO [ ] YES

Not as regards the Radar Intercept Officer himself. See page 6 of the MOR for the pilot of this plane.

MOR NO.	MODEL A/C	BUNO	IDENTIFICATION OF INDIVIDUAL
2-65A	F4B	150410	I

NAME OF INDIVIDUAL: LEE, John E. ENS USNR

OP-05F

☆ U. S. GOVERNMENT PRINTING OFFICE: 1963—686329

SUMMARY AND CONCLUSIONS

Investigation into the psychological background of LCDR J. P. MANFREDI has necessarily consisted largely of numerous personal interviews with close associates, both officer and enlisted, including social and occupational contacts. It is felt that the nature of these interviews is such that their contents must be considered privileged and that specific names be omitted since all prefaced their information with the agreement that they not be required to make a written statement. Some personal observations and conclusions are included because this investigator knew the pilot reasonably well and had the opportunity to learn routine patterns of the man's personality, performance, and ambitions. The pilot possessed an aggressive personality and was quite outspoken, often leading to the impression that he was rather opinionated. Possibly because of these traits, he had few close friends on the ship, even in his own squadron. This is not to imply that he was actually disliked because he also had a talent for injecting humor into a group of people as was often the case in the squadron ready room. His appetite for conversational "talk" and discussions (bordering on debates) was insatiable. There was not a strong support for the Navy life from his family; in fact, his wife often expressed her sincere dislike for the Navy and, particularly, for Naval Aviation. His family was following the ship this cruise and all were together in the last port prior to the accident. No knowledge of new problems of a family nature could be obtained regarding this particular period.

It is a generally held concensus that the pilot was meticulous person motivated to do the best job possible. He was concerned with details and was known to carry out extremely careful preflights on all aircraft he was expected to pilot and always wrote pertinent, careful postflight data on the yellow "gripe" sheets. It is important to take note of the fact that this pilot had had several accidents and/or incidents prior to the fatal accident; the exact number and description of each is not available at this command and was not available from the pilot's own log book. Further, he had frustrating difficulty in carrier approaches while in the RAG for F4B aircraft; in fact, he almost failed to qualify. However it is generally agreed that his performance in the squadron this cruise had been quite satisfactory. It is also known that, during the last cruise (1964-1965) he seriously considered resigning his commission because of personal differences with the squadron commanding officer possibly related to the ramp strike his plane made on board USS FORRESTAL on recovery.

For several days prior to the date of this accident, the pilot was busily engaged in accomplishing administrative business and actually admitted being behind schedule on its completion. He remained up until 0300 on the morning of the accident working on papers and requested not to be placed on the flight schedule that day in order to finish the work. He later requested to fly the night hop. Quite apart from his usual manner of abundant conversation, he was noted to sit silently with a fixed gaze early on the accident date while in the ready room. At approximately 1000 that day, he attended an unexpected meeting concerning the ECMEX exercise with Task Group 60.2 for that night. He, along with other representatives, was dissatisfied with the mission's planning and actual worth. In fact, he became quite angry and declared that "the whole thing was a waste of valuable time and money." At lunch, he further complained of the seemingly useless operation and was heard to murmur, "Oh well, only two more years" (which could mean that he had only two years before reaching eligibility for retirement and that he was considering ending his career in the Navy at that time). At dinner, shortly before the flight under investigation, he

was engaged in a discussion of the exercise forthcoming with a senior officer of the ship's Operations Department and the same disenchantment with the exercis e was brought up; he became so outspoken that the senior officer "pulled rank" and ceased the discussion. After the ready room brief, prior to the fatal flight, he was unexplainably fifteen minutes late in relieving his fellow pilot. He preflighted aircraft 105 and was being towed by tractor when the driver struck a jet blast deflector and shattered the tow bar; immediately he called for maintenance evaluation of structural damage to the nose gear and, justifiably enough, downed 105. The pilot and his RIO proceeded to aircraft 106 which had just previously recovered in an up status and was noted by its linecrew to be rather agitated and blunt with his orders and directives. During the start and refueling procedures, 106 encountered difficulty in that power hookup was interfered with by the cable's coming loose and the refueling hose lost pressure. The preflight was interrupted and the aircraft taxied to the waist catapult (No. 4) where the pilot's ejection seat safety pin was noted to be still in place; however, no s ignificance was attached to this because he routinely removed the pin himself. Due to the confusion created by fueling problems, respotting from the No. 4 elevator to the waist catapult, and resumption of refueling, the plane linecrew were unable, or failed, to complete their postflight check list on the aircraft and were afraid to move about around the plane while on the waist catapult; further, the night was extremely dark and none of the linecrew had been engaged in a night waist catapult launch recent enough to recall exactly what to do and when to do it--in fact, most could not recall having a night F4B waist catapult launch this cruise. This is believable because there had been only twenty (20) such launches this cruise. All these factors led to an undoubted interruption in the normal sequence of thought pattern a pilot experiences at such a crucial time. The plane captain noted that the pilot's seat pin was still in place on the catapult just prior to launch with the canopy closed (the RIO's pin had been removed), but again it was assumed that the pilot would remove the pin himself. Seconds prior to launch, a routine radio call from flight control to the pilot was not acknowledged and no transmission of reply was heard.

All these observations tend to support the conclusion that the pilot was not in the proper mental attitude to control his aircraft to his best ability and, especially so, in an emergency situation. Reliable and qualified witnesses of the pilot's routine daytime launches from the bow catapults reveal that he had a usual tendency to slightly over-rotate, but that he never had any serious difficulty attaining a satisfactory attitude following launch. Not considreing materiel failure, an unfamiliar and totally different catapult shot (as the waist catapult shot is regarded by F4B pilots) on a jet-black, horizonless night is another interruption in the pilot's usual pattern of thought and action. Add the possibility of even a slight over-rotation and consider the pilot in an agitated, frustrated and preoccupied state of mind; there is substantial reason to doubt that his reactions to an unusual aircraft attitude would be quick enough to realize the situation and institute the proper corrective measures. Next, consider the possibility of materiel failure in addition to the above possibilities, especially malfunction of the primary instrument at the critical launch and rotation time--the attitude gyro (replaced three times in the prior twelve flights of aircraft 106) and it seems logical that with nothing ahead but sheer blackness, such a pilot in such a situation could only by pure luck control his plane and prevent crashing into the water.

SPECIAL HANDLING IN ACCORDANCE WITH OPNAV INST 3750.6E

As there are days when one should not walk out of the house or drive an automobile, from a mental standpoint, there are days when a pilot should not fly an airplane. It is the opinion of this investigator that, though it will never be known what the exact cause or causes of this accident were, this was such a day for this pilot and one on which he should not have flown under any such circumstances.

There is no evidence to be found that indicated an attempted ejection by either pilot or RIO. Perhaps there was not time to realize the gravity of the situation before it was too late; perhaps the pilot ordered his RIO to eject and the latter "froze" and did not attempt to eject; perhaps the pilot did attempt to eject and was prevented from doing so by the presence of the safety pin behind the face curtain which should have been removed. This discussion represents conjectures piled on more conjectures; however, all are distinct possibilities and should and must be included in the investigation of an accident where no one survived and where practically no aircraft components were recovered for examination.

RECOMMENDATIONS

1) That waist catapult shots be assigned only to those pilots who have been thoroughly briefed on their proper accomplishment as opposed to the bow catapults and who have also had a recent number of daytime waist shots to reasonably familiarize them with the actual situation. (F4B aircraft).

2) That squadron duty officers and fellow pilots recognize the signs of fatigue, preoccupation, agitation (to mention a few) and recommend to the bearer of such diagnoses that they not fly. If severe enough, the safety officer should be informed of the situation and have the authority to ground with the commanding officer's approval.

3) That a critical re-evaluation be made of the current accident/incident review procedures in order to determine at which point to "draw the line" on pilots who have had several accidents and/or incidents involving pilot error or flying technique.

VF-74 AAR Serial Number 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI.

Flight Experience Resume' of LCDR MANFREDI
(Last Five year period)

DATE	COMMAND ATTACHED	MODEL A/C	FLIGHT HOURS	CV LDGS DAY/NIGHT	OPERATIONAL/ PROFICIENCY
MAR/NOV 65	VF-74	F4B	530	188/64	OPERATIONAL
		TF-9J	5	0/0	OPERATIONAL
AUG 63/ FEB 64	VF-101	F4B	138	19/6	OPERATIONAL
		TF-9J	10	0/0	OPERATIONAL
JUL 63/ AUG 63	VA-43	TF9-F-8T	15	0/0	OPERATIONAL
AUG 62/ JUN 63	NAVWARCOL	T2V	11	0/0	PROFICIENCY
		TC45J	26	0/0	PROFICIENCY
		T1A	35	0/0	PROFICIENCY
JAN 61/ JUL 62	VT-26 CNVANTRA	TC45J	38	0/0	OPERATIONAL
		F9F-8T	165	0/0	OPERATIONAL
		F11F	136	0/0	OPERATIONAL
		T-38	1	0/0	OPERATIONAL
		T-34	25	0/0	OPERATIONAL

Statement of [redacted] AN, Plane Captain of A/C 105, concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI.

On the evening of 26 November 1965 while I was manning A/C 105 of which I am Plane Captain, I was informed that it would be going to the flight deck. After arriving on the flight deck, the aircraft was spotted on elevator no. 4 where it was preflighted, turned up and checked out by an air crew. After shutting down, the A/C was towed to the no. 4 catapult where it was set up on CAP condition II. Shortly thereafter LCDR MANFREDI and ENS LEE relieved the aircrew that was manning.

Approximately fifteen ninutes after being spotted on catapult no. 4 and after being manned by LCDR MANFREDI and ENS LEE, A/C 105 was towed forward and respotted behind no. 1 catapult, nose pointing to the port side of the ship. Another F4B was then launched from no. 2 catapult. After the launch A/C 105 was towed toward no. 2 catapult to set up for CAP Condition II. LCDR MANFREDI and ENS LEE was still in the aircraft at this time. Enroute to the no. 2 catapult, the tractor towing A/C 105 ran into a partially raised Blast Deflector behind catapult # 2, shattering the tow bar. LCDR MANFREDI told me to get some maintenance men to inspect the nose strut for damage. The aircraft was then moved to Elevator #1 and tied down. LCDR MANFREDI and ENS LEE left A/C 105 at this time.

The A/C was again moved and spotted on Catapult #2 where LTJG [redacted] and ENS [redacted] manned it and it was launched. This statement is correct and true to the best of my knowledge and ability.

[redacted]

The board considers the above statement creditable.

[redacted]

STATEMENT OF LT (b) (6) (b) (6) /1310, USN, CONCERNING VF-74
AAR SERIAL NUMBER 2-65A, 26 NOVEMBER 1965, F4B, BUNO 150410, PILOT MANFREDI.

I flew 106 the cycle prior to the accident. The aircraft was thoroughly pre-flighted and post start checks were completed with no discrepancies. No important discrepancies were noted during flight or after landing. Prior to shut down all electrical equipment was turned off and stabilator trim was returned to between 0 and 2 units nose up. My post flight check revealed no major leaks and no structural damage and I declared the aircraft safe for further flight.

I was designated a naval aviator on 11 October 1962 and have 1263 hours total flight time, of which 1230 hours are in jet type aircraft.

(b) (6)

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (25)

STATEMENT OF LCDR (b) (6) (b) (6) /1310, USN, VF-74 MAINTENANCE OFFICER CONCERNING VF-74 AAR SERIAL 2-65A, 26 NOVEMBER 1965, F4B BUNO 150410, PILOT MANFREDI.

F4B BUNO 150410, side number 106, was properly inspected in accordance with NAVWEPS Maintenance Requirement Card Set 01-245FDA-6-1 and 01-245FDA-6-2 for the two previous flights of the day. A daily inspection had been performed in accordance with the MRC 01-245FDA-6-3 after the conclusion of flying on 24 November. The engine and airframes post flight inspections were performed with the exception of completing a visual inspection and check of leading and trailing edge flaps on the port wing after the flaps were extended prior to launch. A complete post and preflight inspection of the aircraft was not conducted by the plane captain and the second mech due to the tempo of operations and the difficulties encountered in refueling and respotting the aircraft. There were no outstanding discrepancies that prevented the aircraft from being considered in all respects ready for flight.

The following Urgent Action changes had not been incorporated in F4B BUNO 150410:

Number	Nomenclature
ASC 86, Part 3	Modification of 35.60 percent wing auxiliary beam
ASC 136, Am 1	Replacement of angle of attack transmitter
AFC 157A	Modification of stabilator power control cylinder assembly
AFC 171	Redesign of catapult holdback installation
AFC 177	Installation of altimeter set AN/APN-141
AFC 178	Rain removal and windshield temperature improvements
AFC 185	Relocate wing tank drain valve
AFC 209	AN/AJB-3 computer set; installation of two additional connectors
AFC 214, Pt 2	Wing pylon support fitting; modification of
AFC 221	Replacement of inner wing center leading edge BLC valve
AFC 241	Provisions for 20 mm gun pod installation
AFC 243	Aft canopy blackout curtain modification
AFC 246	Replacement of engine oil tank overflow line
AFC 248	Addition of canopy selector valve guard
AFC 259, Pt 2	Improvement of canopy control system
AFC 265	Engine bleed air check valve, P/N 38000 series; modification of
AFC 272	Change for pair firing of rockets
AFC 285	RT-546/ASQ-19 wiring correction

Chronological history of F4B BUNO 150410 and maintenance performed on aircraft from 10 previous yellow "B" sheets prior to the accident follows:

Months in service: 37
Months this tour: 6
Total aircraft hours since acceptance: 1026.1
Total aircraft hours this tour: 141.2
Completed 2nd Progressive aircraft rework (O&R MCAS Cherry Point) 24 May 1965
Accepted from H&MS-24 SU#1 18 June 1965 (acceptance inspection performed IAW BUWEPS INST 4700.2A)
Last major inspection completed 10-21-65
Type inspection Odd calendar major
Total flight hours since check: 35.7
Total time on installed engines:
Port (401717) 151.6 since new, 35.7 since installed
Stbd (401101) 221.4 since new, 35.7 since installed
Total number of landings: 806
Total arrested landings: 88
Total arrested landings since check 21

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

History of maintenance discrepancies from 10 previous flights and corrective action taken in inverse chronological order.

Date	Duration of flight	Discrepancy	Corrective action
11-26	1.8	no gunsight bulb	MAF #653 still outstanding
11-26	1.5	None	None
11-24	1.8	Radar: hand control box inop-stayed in 50 mile - no action (full & half)	reconnected loose plug
		10 mile scope too much gain - no TGT - could not bit X	set up rite rates on RIO scope
		stbd fuel flow indicator came out on cat shot - just pushed back in	tightened indicator panel
		flight controls not rigged correctly-stab aug off trim A/C, when engage stab aug, ball goes out to right, trim A/C with stab aug engaged then disengage, ball goes out left - also have to trim aileron to get A/C to fly straight & level	checked rigging of basic controls - adjusted A/P using elect & hyd power
		Amber approach lite out	replaced bulb-power checked good
		bus tie lite came on one time in flight - cycled RT gen and got bus tie closed - stayed out rest of hop	pilots info
11-24	No Fly	on left boost pump test "0" pressure indication	found loose connection on test switch and repaired checks good
11-22	1.7	feed tank checks as before at landing fuel weight internal reads 500% more than total	recalibrated entire system - checks good
		AJB jitters in pitch and does not track smoothly in AZ during turns	replaced AJB-3 gyro-power checks good
		pitch trim indicator indicates at least 1 unit less than the actual trim setting	adjusted trim indicator to match with stab - adjusted rod end on stab
		radio receiver apparently cuts out intermittently- several transmissions were not received on channels 5 & 16	removed and replaced RT-546 power checked good
		UHF command light in R/C out	replaced bulb

11-20	1.5	bit 5 continually breaks left	adjusted PIMS
		bit 6 no rng gate	reseated computer plug
		B sweep 3° L RIO scope	adjusted servo valves
		see tgs in 25 miles, loose in 10 mile	set up "B" bias and rite rates
		B sweep very bright	set up "B" bias and rite rates
		very weak detection	adjusted L 1011
		lock on tgt, B sweep drifts off to side - VC changes lock light stays on	adjusted servo valves
11-20	2.0	ADI jitters & jumps when rolling out of turns - diminished as time progressed	replaced AJB-3 gyro power checks good
		console lights completely out	removed & replaced fuse - checks good
		Stby compass light bulb out	replaced bulb - power checks good
11-18	1.7	None	None
11-18	1.9	feed tank reads 1800# on gage/2200 tape	recalibrated entire system-checks good
11-17	1.5	None	None

(b) (6) [redacted]

Statement of [redacted] [redacted] AMH-3, Troubleshooter for VF-74 Airframes Shop, concerning VF-74 AAR, serial number 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI.

I was on the Bow when A/C 105 was recovered on the night of 26 November 1965. A/C 105 taxied to the bow where I checked the BLC and flaps prior to shut down. I postflighted A/C 105 at this time. While I was postflight checking A/C 105, A/C 106 landed and was immediately spotted on elevator #4. I ran to A/C 106 and checked its' BLC and flaps, having the pilot close the flaps prior to shutting down the engines. A/C 106 checked out in good status.

At this time I was informed of a broken tow bar incident involving A/C 105 on the forward flight deck, and was instructed to check out same for possible damage to the nose strut. I inspected the nose strut and found same undamaged with exception of the nose jack pad safety wire which I re-safetied. LTJG [redacted] preflighted and manned A/C 105 turning up same. The A/C 105 remained turning after preflight control check so I remained with it on catapult #2 assuming it was being launched.

Unknown to me, at the time I was standing by A/C 105, A/C 106 was turning up on catapult #4. Immediately after A/C 105 was launched I ran aft. to A/C 106. When I arrived A/C 106 was being taxied over the shuttle. I raised the nose strut checking the underside of the aircraft. Tension was on the hold-back bar and I checked BLC and leading and trailing edge flaps on the starboard side of the aircraft. I did not have time to check the port BLC and flaps prior to launch because when I completed my inspection of the starboard side, the aircraft went to military R.P.M. The starboard side checked out good and I stepped clear of the aircraft just prior to it being launched.

From the time A/C 106 recovered from the previous flight to the time it was launched, due to circumstances beyond my control, I did not have enough time to conduct a proper Post Flight of the aircraft.

This statement is correct and true to the best of my knowledge and ability.

[redacted]

The board considers the above statement creditable except for the reference to aircraft side number 105 in the first paragraph is in error because that aircraft was spotted on the number one elevator, engines not turning, when aircraft BUNO 150410 (side number 106) was recovered.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (27)

Statement of [redacted] ATR-3, Plane Captain of 106, concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B BUNO 150410, Pilot MANFREDI.

Aircraft 106, came in at approximately 1800 caught the wire and turned around abeam of the island and taxied to elevator number 4. My 2/M and I tied the A/C down along with the help of the blue shirts. LT [redacted] and the RIO left the plane and we started the postflight inspection. As I checked the airframe and hydraulics, my 2/M started the refueling procedure. I went to the nearest deck power cable and dragged it to the plane. It was too short and I put it back into the deck. One of the fuels crew got an NC-2 for power. At this time LCDR MANFREDI and ENS LEE arrived at the plane. My 2/M helped them strap in and LCDR MANFREDI took over the refueling in the cockpit. At this time the fuels crew lost pressure in the refueling hose. This delayed the operation 10-15 min. Then the hose regained pressure, but the yellow shirts gave the word to break it down and finish refueling on the waist cats. We broke the plane down and moved to the waist cats. I got a power cable and we resumed refueling.

After a while I checked the fuel guage on the CTR and it was full. I checked with LCDR MANFREDI and he gave me a thumbs up on the fuel signal. I noticed that the pin bag was lying on LCDR MANFREDI's shoulder. The face curtain pin was still in. I didn't think much about it, as LCDR MANFREDI always pulls it himself before the cat shot.

At this time, P/C for 106 was called for at flight deck control. They wanted to know what the refueling delay was. I explained and left to go back to the plane. When I got back [redacted] had the engines started and was pulling power. I buttoned up the electrical door and the tractor left. I turned on my wands but the yellow shirts gave the signal to break off the chains. The A/C was not checked out before it left. We broke off the chains and walked to the catwalk above VF-74 line shack. I walked from the catwalk as it went off the catapult. I lost view of the A/C as it passed the Island. From what I saw it appeared a normal cat shot.

This statement is true and correct to the best of my knowledge.

[redacted]

The board considers the above statement creditable.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (28)

Statement of [redacted], [redacted] ADJAN, 2/M on A/C 106, concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI.

Aircraft 106 returned from a hop at approximately 1800. LT [redacted] was the pilot. Yellow shirts spotted 106 on #4 Elevator. Pilot and RIO left plane. [redacted] started postflight inspection and I climbed into cockpit to set up seats and fuel A/C. LCDR MANFREDI and ENS LEE arrived at the A/C at this time. LCDR MANFREDI handed me his gear and I set up his seat for him. It seemed to me they were having trouble getting power to the plane. LCDR MANFREDI wanted in his seat at this time. I got out and he got in. I went back to help ENS LEE strap in. I pulled his pin and handed him his gear. I then went to the pilots cockpit and asked LCDR MANFREDI if he wanted me to pull his pin. He said no, he would get it himself and that everything was OK. I got down. At this time the fuels crew lost pressure in their hose. It was about 10 or 15 minutes before they got the pressure back. As soon as they got the pressure back, the yellow shirts gave the word to break the plane down and said that they would finish refueling the plane on the waist cats. [redacted] and I broke the plane down and they moved it to the waist cats. We tied it down again. [redacted] got a power cable and the fuels crew resumed fueling. I was standing by watching the refueling operation. [redacted] checked the guage on center line and told LCDR MANFREDI it was full. [redacted] then pulled power cable and put it back in catwalk. At this time P/C 106 was called to flight deck control. [redacted] went and I stayed there. Then a tractor came and I hooked it up to A/C 106. About 5 minutes passed. There seemed to be a lot of confussion among the directors. A yellow shirt then told me to break the tractor loose, that they were going to move the plane to #2 cat. I broke it loose and they hooked it up to the towbar on the plane. At that time they announced over the 1/MC that they wanted to launch both F-4's. They broke the tractor off the tow bar and put it beside the plane again. I hooked it back up again. At this time I turned up both engines and broke the power off. [redacted] got back at this time. He buttoned up the power door and I got the air door. [redacted] turned on the wands and started to give a check out but the yellow shirts were giving the sign to break it down. We took off the chains and walked to the catwalk above VF-74 line shack. The plane never did get checked out before it left. I went down to the line shack and [redacted] stayed in the catwalk. The next I heard the plane was in the water.

This statement is true and correct to the best of my knowledged.

[redacted]

The board considers the above statement creditable.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OF OPNAV INST 3750.6E

ENCLOSURE (29)

C

Statement of LCDR [redacted] (b) (6) /1317, USNR, Catapult Officer, concerning VF-74 AAR Serial Number 2-65A, 28 November 1965, F4B BUNO 150410, Pilot MANFREDI

At approximately 1900, F4B Side No. 106 was spotted on No. 4 Catapult as a CONDITION II CAP. At 1910, an E1B on No. 3 Catapult was started for launch. Approximately 1925, F4B No. 106 was started for launch but was delayed for a short time while the E1B on No. 3 Catapult was moved forward. After the bridle was tensioned, F4B No. 106 went to full power and signaled "ready to launch" with wing lights on. The Catapult was fired with a normal stroke and No. 106 appeared to make a normal transition off No. 2 Elevator. At this time I directed my attention to the derigging of No. 3 Catapult for aircraft recovery. Nothing unusual was observed up to this point.

The following data is submitted concerning the launch: (OPNAVINST 3750.6E Page 33)

A. No. 4 Catapult Waist, outboard
B. 128 knots endspeed. W. O. D. 34 knots, 355° relative
C. Bridle No. 608904-1
Holdback No. 609789-1
Tension Bar No. 508708-1
7/8" Nylon Rope
D. Lanyard Lengths: Eye 9Ft. and 12Ft.
Nose 16in.
E. N/A
F. Mark 2 Mod 0 Bridle Arrestor
Total Bridle Run-out: 45Ft.
Primary Brake Pressure: 560 PSI
G. N/A
H. (Photo) N/A
I. Deck equipment condition: Normal
J. Number Launches On Bridle: 28
K. Steam Pressure: 540 PSI

I was designated a Naval Aviator in 1955 and have 2810 hours total flight time, of which 2300 hours are in jet type aircraft.

[redacted] (b) (6)

STATEMENT OF CDR [redacted] 1310, USN, CONCERNING VF-74 AAR SERIAL NUMBER 2-65A, 26 NOVEMBER 1965, F4B, BUNO 150410, PILOT MANFREDI

On the night of 26 November 1965 LCDR MANFREDI and his RIO, ENS LEE, were in F-4B BUNO 150410 spotted on the number four catapult, USS FORRESTAL in CAP condition II. Myself and my RIO, ENS [redacted] were about to relieve LCDR MANFREDI in 50410 at 1930. We departed the ready room about 1910. Upon arriving on the flight deck we were told that 50410 was to be launched at 1930 and that we were to man side number 100 (BUNO 152285) which was spotted on number four elevator. This we did.

About launch time, 1930, I had started engines and was going through the complete pre take-off check routine. During this time I was pointed directly at the area of the number three and four catapults and therefore observing the happenings there. The Catapult Officer was attempting to launch a FUDD from cat three at 1930. For some reason his efforts were unsuccessful and the FUDD was taxied forward. I then watched 50410 prepare for the launch. The wings were spread and flaps extended full down. I could not see the port flap but the starboard leading and trailing edge flaps were full down. The aircraft was taxied over the shuttle and the nose gear extended normally. The bridle was applied to the cat hooks and I saw the director signal the pilot and cat crew to take tensions. Power was increased to what I consider was full military. The noise was so intense I had to press the sides of my hard hat together to stop the vibration in my ears. I feel certain that the engines were at full power. I was almost two hundred feet from the tailpipes and my ears were hurting. The director turned the aircraft over to the cat officer who picked it up with the rotary motion of the green wand. Visibility into this area was very good because of the mast mounted flood lighting and flush mounted red deck lights along the cat track which reflect on the under surface of the aircraft.

Very shortly after the cat officer's green wand illuminated, the aircraft's wing and tail lights came on. The cat officer touched the deck with the wand and the cat fired. I watched the aircraft accelerate down the cat track. The shot was normal in all respects. As the aircraft rotated off the angle, it passed from my field of view behind aircraft parked on the corral abeam the island. I did not actually see the act of rotation. I felt the launch was completely normal, I was not concerned about it and I went back to the business of checking my own bird.

A short time passed - I have thought it over very carefully and I feel it was between twenty and thirty seconds - and I heard a radio transmission on button 14, departure frequency. The voice was quite frantic, panicky, yet the words were fairly clearly spoken. I asked my RIO over the intercom what was said. He said "It sounded like Italian or something." I said, "No it wasn't, it was in English, what was said?" He said, "It sounded like someone said We're in trouble, we're in trouble!" I then said, "It sounded like Level your wings, level your wings!"

Whatever was said was said twice. It was not the voice of the pilot whom I have heard over the radio over the past year and a half. I feel now that it was the voice of the RIO as I believe 50410 and ourselves were the only two aircraft on that channel at that time. The delay in launch of the FUDD had allowed another F-4 launched from cat two plenty of time to become airborne and to have switched to his control frequency. There were, I believe, no other aircraft launched immediately preceeding 50410. No airborne aircraft, from earlier launches would have been up on departure frequency.

(b) (5) [redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 66 OPNAV INST 3750.6E

As to the condition of the aircraft, 50410, I had flown it the same day of the crash, actually the second flight previous to the one which terminated in the accident. It was a good bird. The stability augmentation system had been griped the flight previous to mine, by LCDR MANFREDI I belive, specifically for an out of trim condition in the yaw channel between "stab aug on" and "stab aug off." The control system harmony and response I experienced were excellent. On my flight, there was nothing wrong with 50410 and I reported it in an "up" status on my return.

I was designated a Naval Aviator 20 October 1948 and have 4533 hours total flight time, of which 1531 hours are in jet type aircraft.

(b) (6)

[redacted]

Statement of ENS [redacted] (b) (6) /1325, USNR, RIO of A/C 100, concerning VF-74 AAR serial number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI.

I was in A/C 100 on condition II cap at the time A/C 106 was launched. My A/C was turned up and I was monitering button #14. We were spotted on #4 elevator. 106 was fired from #4 cat and went into a shallow starboard turn across the bow of the ship. My view was momentarily blocked by the island structure then the A/C came back into view, still in a starboard turn, on the starboard side of the island structure. Altitude was 100' to 200'. I turned back toward the flight deck and as I turned heard the following transmission: "We're in trouble! We're in trouble!" My pilot thought the transmission was, "Level your wings! Level your wings!" At this time we were not aware that the A/C had gone into the water.

I was designated a NFO on 15 June 1965 and have 230 hours, of which 180 hours are F-4 time.

[redacted] (b) (6)

Statement of LTJG [redacted] [redacted] 1315, USNR, Flight Deck, concerning VP-74 AAR Serial Number 2-65A, 26 November 1965, F4B, BUNO 150410, Pilot MANFREDI

As the pilot of the E1B on the number two catapult at the time of the accident, I first saw the subject F4B as it went by my port side off the waist catapult. At the time, I wasn't sure whether he had boltered or was catapulted in that he seemed to have sufficient flying speed and control of the aircraft.

I then lost sight of him for just a few seconds while taxiing into the holdback. He came into my field of vision once again as he crossed over the bow just ahead of the ship. He had climbed initially to an altitude of about 50 feet above flight deck level before starting a sharp roll to starboard, entering the water in what appeared to be a nose down attitude. It was a clear but very dark night with no visible horizon, therefore I was unable to see his exact attitude. However, judging from the movement and position of his running lights, he seemed to have rolled through more than 90° of bank.

As soon as the aircraft vanished from sight, I heard someone on the radio say something to the effect that an aircraft had ditched off the starboard side. We were monitoring both channel 14 and 15 simultaneously and the tower (ch.15) was talking with inbound aircraft often, after the initial report of the ditching. I heard no other radio transmissions concerning the accident and I heard no transmissions prior to the ditching which sounded as if it came from the F4B. It is possible , however, that any brief transmission made by the F4B could have been drowned out or overridden by the heavy traffic on channel 15. There were no flashes of light indicating an explosion or attempted ejection. An inspection of our aircraft revealed no evidence that the F4B might have struck us as he passed by, which caused the pilot to lose control. Our wings were in the folded position at the time he was catapulted, keeping us well clear of his flight path.

I was designated a Naval Aviator 28 AUG 63 and have 1287 hours total flight time, of which all hours are in prop type aircraft.

[redacted]

SPECIAL HANDLING REQUIRED IN ACCORDANCE WITH PARA 64 OF OPNAV INST 3750.6E

ENCLOSURE (33)

NASC DE COMM NR010/28
DCA019CB1002
PP RUCKDG
DE RUTKRK 848 3312245
ZNR UUUUU
P 271530ZNOV 65
FM USS FORRESTAL
TO RUECW/CNO
RUCKDG/NAVAVSAFCEN
INFO RUECM/BUWEPS
RUTPRC/YQJQ/COMSIXTHFLT
RUCKDN/COMFAIRNORVA
RUCKDA/COMNAVAIRLANT
RUCKSL/REPCARAIRWING FOUR
RUWSAL/REPCARAIRWING ONE TWO
RUCKHD/CG FMFLANT
RUWD/CG AIRFMFPAC
RUEPMR/RBR ARMED FORCES INSTITUTE OF PATHOLOGY
RUCKHC/CINCLANFLT
RUECH/BUPERS
RUWHNF/DIR AEROSPACE SAFETY NORTON AFB
RUECM/CHNAVMAT
RUCBGD/BWR ST LOUIS
RUQKRT/B0QC/CTF SIX ZERO
RUQKRN/J1CC/CTG SIX ZERO PT TWO
BT
UNCLAS
SUPPLEMENTARY MSG RPT OF AAR
A. OPNAVINST P3750.6E
B. MY 262200Z
1. F4B, 150410, FITRON 74, SER 2-65A, MANFREDI
2. AIR INTERCEPT, CVA-59 TO CVA-59 VFR, 0 PLUS 01
3. ALFA, LOST AT SEA
4. NIGHT CATAPULT LAUNCH FROM CONDITION II CAP
5. AIRCRAFT OVER-ROTATED AFTER NIGHT LAUNCH FROM NO. FOUR CATAPULT.
15 KTS EXCESS END. SPD A/C CROSSED THE BOW, NOSE HIGH, WITH MODERATE

PAGE TWO RUTKRK 848 UNCLAS
TO SEVERE WING ROCK IN APPARENT STALLED CONDITION. NO APPARENT ATTEMPT
TO INITIATE BURNER. A/C ENTERED THE WATER APPROX. 3/4 MILE AHEAD
AND TO THE RIGHT OF THE SHIP IN A RIGHT WING DOWN ATTITUDE. NO
FIRE OR EXPLOSION OBSERVED. ENGINE OPERATION APPEARED NORMAL TO
IMPACT. NO MECHANICAL DISCREPANCIES NOTED PRIOR TO LAUNCH. NO
APPARENT ATTEMPT AT EJECTION BY EITHER CREW MEMBER.
6. TRUE WIND 270/17, SEA STATE SIGHT, CLOUD COVERAGE 3000 SCTD, TEMP/
DEW PT 60/51 VIS 10.
7. NONE
8. N/A
9. NONE
10. NONE
11. NONE
12. OFFICIAL SEARCH BY SURFACE AND AIRBORNE UNITS TERMINATED AT 271130Z.
FRAGMENTS OF AIRCRAFT RECOVERED INDICATE POSSIBILITY OF SURVIVAL
NIL. CREW MEMBERS HAVE BEEN REPORTED DEAD.
NEXT OF KIN: A. MANFREDI: THERESA MANFREDI, 909 GENERAL BEAUREGARD
DR. VIRGINIA BEACH, VA, WIFE
B. (b) (6) [redacted]

BT

10/28/65

Supp AAR

F4B 150410 VF 74 AAR 11-26-65

Nov 271530Z

SAFECEN DE COMM NR 045/027

DGB339CBE616
PP RUCKDG
DE RUTKRK 770 331021:
ZNR UUUUU
P 262200Z NOV 65
FM USS FORRESTAL
TO RUECN/CNO
RUCKDG/NAVAVSAFCEN
INFO RUECN/BUWEPS
RUTPRC/YOJO/COMSIXTHFLT
RUCKDG/COMFAIRNORVA
RUCKDA/COMNAVAIRLANT
RUCKSL/REPCARAIRWING FOUR
RUNSAL/REPCARAIRWING ONE TWO
RUWD3/CG ELRFMFPAC
RUCKMD/CG FMFLANT
RUEPNR/DIR ARMED FORCES INSOSTUTE OF PATHOLOGY
RUCKHC/CINCLANTFLT
RUECH/BUPERS
RUWH JWXDER AEROSPACE SAFETY NORTON AFB SAN BERNADINO CALIF
RUECM/CHNAVMAT
RUCBDG/BWR SAINT LOUIS
RUFRF/COMFAIRMED
RUQKRT/BØQC/CTF SIX ZERO
RUQKRN/J1CC/CTG SIX ZERO PT TWO
BT
UNCLAS
PRELIMINARY MSG REPT OF AIR
A. OPNAVINST P. 3750.6E
1. F4B, 150410, FITRON 74
2. 26 NOV 65, 1935A, CVA-59, AT SEA
3. AIR INTERCEPT
4. ALFA
5. COLLISION WATER, CATAPULT LAUNCH, OVER-ROTATION AND SUBSEQUENT STALL
6. JOHN PHILIP MANFREDI, LCDR, (b) (6) USN, 1310, ACTIVE, MISSING
7. JOHN ELWOOD LEE, ENS, (b) (6) USNR, 1325, ACTIVE, MISSING
8. IF APPLICABLE TO FOLLOW IN SUPPLEMENTARY MSG.
9. NONE
BT

#045/27

AAR

F4B 150410 VF-74 AAR 11-26-65 NOV 262200Z